

THE CULTIVATOR.

NEW

"TO IMPROVE THE SOIL AND THE MIND."

SERIES.

VOL. III.

ALBANY, JANUARY, 1846.

No. 1.

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by
LUTHER TUCKER, EDITOR AND PROPRIETOR.

ONE DOLLAR A YEAR.

SEVEN copies for \$5—FIFTEEN copies for \$10.00—all payments to be made in advance, and free of postage. All subscriptions to commence with the volume.

OFFICE IN NEW-YORK CITY, AT

M. H. NEWMAN'S BOOKSTORE, No. 199 BROADWAY, where single numbers, or complete sets of the back volumes, can always be obtained.

"The Cultivator" is subject to newspaper postage only.

MILCH COWS.

WITH A PORTRAIT OF MR. DONALDSON'S PRIZE COW.

WE herewith present our readers with a fine steel portrait of the native cow "Kaatskill," belonging to R. DONALDSON, Esq., Blithewood, Dutchess county. The plate, which was executed expressly for the Cultivator, exhibits in the background, some of the beautiful scenery for which Blithewood is distinguished. It is a view of part of a fine stream which winds romantically through the northern portion of the grounds, and forms, in the space of half a mile, several charming cascades, one of which has a perpendicular fall of upwards of sixty feet. In Mr. DOWNING'S Landscape Gardening and Rural Architecture, there are representations of other views belonging to the same locality. (See pages 308, 336.) In our August number of last volume, accompanying the portrait of Mr. DONALDSON'S bull Prince Albert, we gave a more extended notice of this place and its numerous interesting associations.

"Kaatskill" received the first prize of the New-York State Agricultural Society as the best Dairy cow exhibited at Poughkeepsie, in 1844. We are unable to refer to the original statement furnished the society by Mr. DONALDSON in regard to the produce of this cow, but can say that satisfactory evidence was given that she had yielded, when kept on grass only, 38½ quarts of milk per day, and that from the milk given by her in two days, 6½ pounds of butter were made, being at the rate of 22½ pounds per week. Her appearance fully corresponds with the account of her produce. It is proper to state that while her milk was measured for the purpose of accurately ascertaining the quantity, she was milked four times every twenty-four hours.

It is a matter of regret that in breeding stock, so little attention is paid to the improvement of the milch cow. Almost every farmer may have noticed some of his herd that yield a much larger proportion of butter than others. It is not unfrequent that the difference in the amount of produce between the best and poorest of a lot of only eight or ten cows, amounts to one half, or more; and this too, without any perceptible difference in the quantity of food they eat. It is true that in the common mode of keeping stock, the relative amount of food consumed by the different animals is not accurately

known; but there can be no reasonable doubt that the variation in their actual profit, is as great as we have stated.

We are aware that some have objected to the practicability of improving the breed of dairy stock—that "milking qualities are a matter of chance"—that though "you can breed fatting stock, you cannot breed a good milch cow;" but we think these conclusions have been adopted without due regard to the grand law of the animal and vegetable kingdoms, "like produces like." We cannot discover any natural barrier or obstacle to improvement in this case any more than exists in reference to breeding animals for any other purpose. Whenever the object of improving dairy stock has been undertaken, and judiciously and perseveringly carried on, we think a success correspondent to similar attempts for the improvement of other descriptions of stock, has been realized. But it is a fact that but little systematic effort has been made in this country in reference to this object—at this time there are but few breeders within our knowledge who regard dairy qualities as of primary importance; and we fully believe that a skillful breeder of dairy-stock who would engage earnestly in the business, and prosecute it with energy and judgment, would confer important benefits on the community, and would ultimately receive abundant pecuniary recompense.

POINTS OF A GOOD DAIRY COW.

It is admitted that cows are sometimes met with which give large yields of milk and butter, that have few or none of the points usually considered indicative of excellence. Some farmers, indeed, seem to consider beauty or symmetry wholly incompatible with good milking qualities, and, judging from their own herds, believe that the more ugly and uncouth the shape and appearance of their cows, the better they are.

Although in this case the breeder should regard dairy qualities as of the first importance, he should by no means be satisfied with these. His cows may give a large quantity of milk under circumstances which particularly favor them, and yet lack some of the essential requisites of profitable stock—such as constitution, and an ability to sustain themselves under disadvantages of food and climate. A weak constituted cow, when highly fed and well protected, frequently gives much milk, though it is apt to be deficient in richness; and notwithstanding she requires more and better food, and more care in sheltering, &c., than a hardy one, she will not last long, but will fail at an early age. Her weakness also exposes her more to the attacks of various diseases, which, as she has not the energy to resist them, are likely to prove fatal. Thus, excepting for use in the dairy for a short time, she is nearly worthless. Her progeny usually inherit her feebleness, requiring, if reared, very careful nursing, and in the end seldom prove profitable. Hence the breeder of dairy stock should endeavor to unite in his animals all the qualities on which their aggregate value depends.

The points of a perfect milch cow are—the head small; the muzzle fine; the face rather dished; and the space between the eyes wide. A wedge-shaped head should be avoided, as indicating weakness of con-

stitution. The eye should be large, full, bright, and expressive of mildness and intelligence; the horns slender and of a waxy appearance; the ears thin; the neck small at its junction with the head, rather thin than fleshy, but pretty deep and full where it joins the body. The breast need not be so wide as in cattle designed chiefly for fattening, but it should not be too narrow; the portion of the chest beneath the shoulders deep; the shoulders not coarse and projecting, but well laid in at the top; the back straight; the loin and hips wide; the rump long and the pelvis wide. The ribs not quite so round as is preferred for grazing stock, but still giving to the carcass a barrel-like form. The flanks should be deep and full; the hind quarters long, and heavy in proportion to the fore ones; the twist wide; the thighs thin; the tail slender, excepting at its upper end, where it should be large; it should not rise much above the level of the rump; the legs rather short, and small and flat below the knee and hock. The skin should be of middling thickness, mellow, and elastic, and of a yellowish color as indicative of richness of milk; the hair thickly set and soft. The udder should be capacious, spreading wide on the body, but not hanging low, without fleshiness, but having plenty of loose skin; the teats of medium size, regularly tapering from the upper end, widely separated from each other, and placed well on the forward part of the bag. The milk-veins large, springing out near the fore legs, and appearing well developed to their junction with the udder.

The points relative to the skin, udder, &c., though mentioned last, we consider most indicative of good milking qualities.

Some of the best cows for the production of butter, have been known to possess nearly all the above characteristics—they therefore approached nearly to perfection, for while they had all the requisites of dairy cows, they possessed those also which fitted them for other purposes and greatly enhanced their value. Their progeny if females, were such as were wanted for cows—if males, and by a bull of the right kind, they made the most valuable stock for work or fattening.

There is not only a great difference in the amount of cream and butter afforded by a given quantity of milk from different cows, but the *quality* of the butter produced by the same process, is likewise very different. It is well known that butter of the best quality cannot be made from some cows, whatever may be the quantity they yield. In our experience, we have generally found this to be the case with cows giving a large quantity of thin milk. We have also noticed that coarse-boned, hard-skinned, unthrifty cows, generally afford the poorest milk and the poorest butter.

It has been laid down as a rule that cattle which fatten readily, usually give richer milk than those of an opposite character. A reference to some breeds we think supports this conclusion. The old Short Horns for instance, gave poor milk, and they were very lean and unthrifty. The improved breed, on the other hand, fatten easily, and though they give less milk than the old stock, it is of better quality. The Kyloes and Galloways, breeds which are much disposed to fatten, give milk of remarkable richness. Now, although we would by no means encourage an *excessive* fattening tendency in dairy stock, we believe that for the purpose of obtaining rich milk and good butter, the fattening properties should not be disregarded. In connection, therefore, with the points which indicate a disposition to secrete milk, we would unite those denoting constitution and a *moderate* tendency to make fat, in order to constitute an animal whose produce should be superior in quality as well as quantity, and which should combine the requisites that would increase to the greatest extent her ultimate profit and value.

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REMARKABLY PRODUCTIVE COWS.

A notice of some of the most remarkable cows of which accounts have been made public, may be read with interest, as it serves to show what is attainable in this respect.

The most extraordinary cow of which we have any record, is one which was owned by William Cramp, of Lewes, Sussex, England, concerning which the Board of Agriculture collected the following facts:

She was of the Sussex breed, and was calved in 1799. From May 1, 1805, to April 2, 1806, forty-eight weeks and one day, her milk produced 540 lbs. of butter. The next year, or from April 19, the day she calved, to Feb. 27, 1807, forty-five weeks, she produced 450 lbs. of butter. It is stated that she was sick this year, and under the care of a farrier three weeks after calving. The third year, from April 6, 1807, the time she calved, to April 4, 1808, fifty-one weeks and four days, she produced 675 lbs. of butter. The fourth year from April 22, 1808, the day she calved, to Feb. 13, 1809, forty-two weeks and three days, she produced 466 lbs. butter. The fifth year, from April 3, 1809, to May 8, 1810, fifty-seven weeks, she produced 594 lbs. butter. The greatest quantity of butter mentioned as having been produced by this cow in any one week, was 18 lbs., and the greatest quantity of milk mentioned as having been given in any one day, was 20 quarts. She was well fed at all times. "In summer she was fed on clover, lucerne, rye-grass, and carrots, three or four times a day, and at noon about four gallons of grains and two of bran, mixed together. In winter she was fed with hay, grain, and bran, mixed as before stated, feeding often."

The next most remarkable in the catalogue, is the celebrated Oaks or "Danvers prize cow." The first notice we find of her, is in a communication from E. Hersy Derby, Esq., to the Massachusetts Agricultural Repository and Journal, dated Dec. 25, 1816. From this it appears that in 1813, Caleb Oaks, of Danvers, Mass., bought this cow "of his brother-in-law," by whom she had been purchased out of a drove. She was then five years old. Mr. Oaks made from her the first year, 180 lbs. of butter; the next year, 1814, she made 300 lbs.; in 1815, over 400 lbs., and in 1816, 484½ lbs. In the latter year she took the first premium at the Massachusetts state show, at Brighton. The greatest quantity of butter made by her in one week, was 19½ lbs.; the greatest quantity of milk given per day, was 16 to 18 quarts. She was fed, in addition to ordinary pasture feed, with one bushel of Indian meal per week, and allowed to drink all her skimmed milk. After the above trials, she was purchased by the Hon. Josiah Quincy; her yield in butter, however, never came up to what it had before been, though she sometimes made 16 lbs. per week, and her milk was of such richness that five quarts of it frequently yielded a pound of butter.

Mr. Colman states that he found in Ireland, a dairy of fine cows of the Kerry breed, (a small race,) which averaged 320 lbs. of butter to each for the season.

The milk given by one of Col. Jaques' "cream-pot" cows in three days, afforded nine pounds of butter—or at the rate of twenty-one pounds per week—and another of the same family made nineteen pounds per week.

Six Durham cows belonging to George Vail, Troy, made in 30 days, (June, 1844,) 262 lbs. 7 oz. butter—being an average of 43 lbs. 12 oz. to each cow. The average quantity of milk per day for each cow, was 22½ quarts. The feed was grass only.

Mr. Colman, in his Fourth Report on the Agriculture of Massachusetts, gives a list of 66 "native" cows and their produce, from which we take the following:

The Nourse cow, owned in North Salem, made 20 lbs. of butter in one week, and averaged 14 lbs. of butter per week for four successive months.

A cow owned by Samuel D. Colt, of Pittsfield, from 1st December to 26th April, 148 days produced 193 lbs. of butter.

Four cows belonging to Jesse Putnam, Danvers, Mass., in 1830, averaged more than 208 lbs. of butter each in the season; highly fed.

A cow owned by S. Henshaw, Springfield, produced 17½ lbs. of butter per week, and in one case, 21 lbs. of excellent butter. In 4½ days, that is 4 days and one milking, she produced 14 lbs. 3 oz. of butter—at the rate of 22½ lbs. per week.

NOTES OF TRAVEL IN IRELAND.....No. II.

RURAL AND AGRICULTURAL.

DEEPLY interested as we have been by the perusal of the second number of our correspondent's "Notes of Travel in Ireland," we find ourselves compelled to curtail them somewhat, in order to dispose of his letter in a single number of our paper. It is dated at Dublin, March, 1845, and opens with the following account of an

IRISH FARMER'S BREAKFAST.

L. TUCKER, Esq.—If I recollect rightly, I closed my last letter to you as I entered the breakfast-room in Smithfield. Allow me now to lead you to the breakfast-table, and introduce you to its company. At the head of the table was seated the elegant and accomplished mistress of the house, the wife of one of the partners of the firm; and at the foot, presided two of her daughters, that in appearance and manner, would in my opinion have graced any situation in which chance or fortune could have placed them; I involuntarily thought to myself, what a valuable importation one of them would be to my country, as an American farmer's wife!

The table was laid for about twenty, which I understood was usually filled at least three times in succession every market morning. The ladies at either end, distributed black and green tea, and chocolate, at the choice of the persons they served, (but *coffee* was not on their catalogue); in the center were two very neat and ornamental metal stands, for boiling eggs, which were constantly kept replenished, and needed it too, from the numbers used; around was placed loaves of "light" bread, at least one day old, with nice French rolls, of the same age; and here and there, interspersed with coolers of the finest fresh butter, were neat silver racks filled with cold dry toast; this comprised the whole of the eatables and drinkables, on the breakfast table. Not an atom of meat nor a bite of hot bread was there to be seen; yet all eat heartily, and were the most healthy and ruddy looking set of men, both old and young, that I ever before saw congregated together. I must not forget to mention, though, that on a *side-table* was placed a huge sirloin of roast beef, a monster round of cold corned beef, and one of the finest cold corned beef tongues (*neat's* tongue as it is here called,) that I ever saw, which, with a large silver mustard pot well filled, a jug of fine sparkling old ale overflowing, and a few Irish potatoes baked in their jackets, formed the *reserve-table* for those gentlemen who had ridden some ten or twelve *Irish* miles before daylight into market; (recollect their miles, like their hearts, are larger than the English, the proportion being as eleven to fourteen;) and they were not a few, judging by the number that paid their respects to this last described table.

I was here most forcibly struck with the difference between those people and ourselves. Although all in the room were men of business and of the same pursuits, yet not one word was spoken on business; not a *dollar* or a *cent* escaped their lips. Each one seemed to vie with the other in the raciness and point of his joke, at the expense of his neighbor, in which the mother and daughters joined with all their hearts and souls; all was mirth and jollity, and all seemed to me as of one family, I being the only individual to whom "Mr." was applied, the others familiarly addressing each other by their given names, which made me for some time feel as "a stranger in a strange land." Business was reserved to be spoken of, and attended to, in its proper place, and in the absence of the ladies.

In the course of half an hour I was successively introduced to some 40 or 50 gentlemen, the elite of the graziers and farmers of Kildare, Meath and Dublin. You may judge the pleasure I derived from this, when I tell you that fully one-third of them were the acquaintances and cotemporaries of my father; *every one* gave me a pressing invitation to his home, conveyed in such language that I could not mistake it for meaning else than what it said. Many were the questions asked respecting my country. I discovered that every one

had some near friend or relative in America. They astonished me however, by the little they knew of our country, its localities, or institutions. Though elegantly educated and well informed men otherwise, they were entirely ignorant on these points; yet I could say that the Irish hold America *second only* in their love and respect, to their own dear native soil.

PHOENIX PARK, DUBLIN.

Our correspondent left Dublin on a visit to Mr. JOHN RORKE, at Finstown, about six miles from that city. Of what he says of the route thither, we can make room for the following only:

Quitting Barrack-street, we left the great western mail coach road, and entered the Phoenix Park, in which is the country residence of the Lord Lieutenant, through a beautiful entrance formed of two pairs of iron gates, so constructed that the carriages going out should not come in contact with the others coming in. On either side is a neat cottage, called here "Lodges," in which two of the Rangers or Game-Keepers of the Park reside with their families. We then got on high, but perfectly level ground, and passed for fully three miles across this Park, on a fine, smooth, and McAdamised road, having below us in the valley, a full view of the Liffey, the Old-Man's Hospital, Island Bridge, the extensive Artillery barracks adjoining, Kilmainham Prison, the beautifully arranged and capacious Portobello-barracks, with a partial peep at the Penitentiary in which O'Connell and his associates were confined. In the back ground, extending in width some six to eight miles, is a gently rising plain, green at all seasons as are our fields in May, thickly studded with country residences, chiefly of the gentry of the city, the grounds carefully planted with trees laid off in groups, giving the scene such an air of taste and finish, as renders it worthy of being crowned by the charmingly majestic Dublin and Wicklow mountains which rise immediately at its back, and terminate the visible horizon to the south, for the whole extent within view.

Besides the residence of the Lord Lieutenant, in this Park also are the private residences of the Secretary and Under-Secretary to the Government, and of other officials, which greatly tend to relieve the eye in looking over so extensive a domain, containing several thousand acres, reminding me involuntarily at the time, of one of our own great prairies in Illinois. It is well stocked with deer; here and there we passed several large herds of them bounding across our road, taking no more notice of us, or of the many other vehicles that passed, than so many cows would have done. The public have free access at all times to this Park, which is the most beautiful and most extensive that the inhabitants of any city in any country have for their recreation and amusement. It is the property of, and supported by the Government, and is kept in superb order.

At the extreme west end we left this Park through similar gates, and descended Knockmaroon hill, to what is called the "lower road," at the foot of which we suddenly came again on the Liffey, and continued along its banks four miles; here commences the far-famed Strawberry banks that supply Dublin with this delicious fruit. They extend rather more than two miles in length, rising from the road, steeply yet moderately sloping, some 600 or 800 feet to the level above. Along its basis are thatched cottages of the neatest kind and order, with bowers in front of each, where the citizens come of summer evenings, with their families, to eat fresh strawberries and cream, and to throw out their flies into the Liffey for either a trout or a salmon, with both of which fish it abounds, of the finest quality and largest size.

AN IRISH FARM-YARD AND ITS APPURTENANCES.

Anxious to see some of what was to be seen in the farm-yard, I was out in the morning by 7 o'clock, but Mr. Rorke and his sons were there before me, and had finished their rounds by daylight. To describe his farm-yard is a task I undertake with pleasure, although I feel incompetent to do any thing like justice to it. It

stands immediately in the rear of his house and shaded from view, though within a few steps, by a judiciously planted shrubbery of forest and evergreen trees. It is entirely closed in, together with the hay and grain-yards, all of which cover about four Irish acres of ground. There are two large gates of entrance, the one from the back part of the farm, the other from the front portion of it. At one end stands a large brick building, the mill house, where the oats and grain and other food for his stock is ground and crushed. Here is a turnep or general root slicer, and also a straw-cutter, together with the best and most complete thrashing machine I ever saw; when the grain is fed to it in front, you have no more trouble about it; it is thrashed, winnowed, the straw shaken and thrown out into a large straw-shed adjoining, where a man packs it away, and the clean grain is raised by elevators into the upper lofts and deposited there for safe keeping. The whole machinery is moved by water. In the rear of this building is the grain-stack-yard, so arranged that most of it can be thrown from the stack under a shed to within reach of the man that feeds the thrasher.

On two sides of the square, stand brick sheds with slated roofs, containing 350 milch cows, the milk of which is sent into Dublin twice a day, to three hospitals (one of them the "Foundling Hospital" that takes more than half of the whole,) which Mr. R. has supplied by contract for many years. Those cows are never let out, having a fresh supply of water constantly before them within reach, and are fed in the summer with fresh cut Italian Rye grass, (of which Mr. R. speaks in the most favorable terms,) with clover, vetches, and fresh cut common grass, alternately, and in their turn. In winter he feeds them with turneps, potatoes and mangel-wurtzel, all steamed, and also gives them some chopped straw and hay steamed, with the liquor it was steamed in, and some bruised oats and barley meal, and some linseed meal-cake occasionally mixed with it. You may judge from this management, the condition of the cows, and the quantity of milk they give. Those cows are curried and brushed once a day, and the whole of the passages washed out twice every day with water and a broom; the temperature is kept below 65 and over 60 during the winter. One man is allowed for every ten cows, to feed, milk, clean and attend to them, and there is no time that you cannot with comfort sit down in the sheds, so neatly are they kept. The feeding is done four times a day by clock work. A large clock is placed in the front of one of the buildings, within view from every part of the yard, and can be heard strike, of a mild day, at the most distant part of the farm.

Another square was occupied by sheds of a similar kind, and contained 200 heifers, four years old, that were fattening for the Dublin Smithfield market. Some of those were fit for market then, and we judged them to weigh on an average, seven hundred weight, or 784 lbs. each, the cwt. being 112 lbs., by which they compute their weights here I find. Those heifers were fed principally on hay and turneps, as much as they would eat three times a day, with an occasional change of a feed of potatoes and some linseed meal-cake as they approached being finished off. No water was given them, nor did they need it, which surprised me; they were well curried twice a day, and the passages cleaned and washed as the cow sheds; but each man had fifteen heifers to feed and attend to.

On another square, the mill house standing at one end, are the work horse stables and harness rooms, of equal finish, and as complete as the other buildings. In the center of this square, surrounded by a three foot wall, is a large space, hollowed out in the middle, for the dung, of which wagon loads are made every day. About the middle of each building is a large cistern to receive the urin of the animals, which is pumped out, and carted on to the land in carts precisely similar to those with which the streets in cities are watered.

In the center of each building is a feeding room, in the rear of which are root sheds, as well as extensive potato pits within the outer rick-yard wall; and in the rear of each square, is built an immense rick of hay,

containing, as they estimated, some forty tons each, from which, with a hay knife, is cut off fresh each day the quantity for consumption on that day. In each shed is a *cattle-tube*, to be used in case that any of the stock should get choked by any of the roots on which they are feeding. It is a most useful instrument, quite elastic, and can be used without danger by any man, and gives immediate relief by pushing before it into the stomach, any obstruction that might have remained in the throat; no farmer, or at least neighborhood, should be without one of them. A watchman is up every night in the year, constantly going from shed to shed, to guard against fire, and to give relief to any animal that might require it during the night, as well as to call the men at 2 o'clock for milking.

The farm consists of 700 acres, the management of which I will give you some account of, together with a description of my first Irish fox-hunt with the Kildare hounds, in my next.

Till then, adieu, and believe me yours truly.

F. J. F.

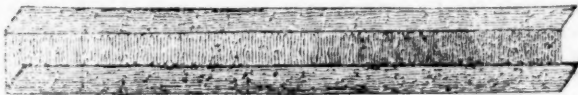
CEMENT PIPES FOR CONVEYING WATER.

WITH FIGURES OF IMPLEMENTS USED.

LUTHER TUCKER, Esq.—Having had experience in the construction and use of cement pipes for conveying water, I will venture to answer the inquiries of your correspondent, Mr. GUERNSEY. In doing so, you will permit me to write just as I should to a person who had never heard of cement pipes; that is, fully describe every part of the process, in the hope that my description will enable an ingenious man to make a perfect pipe.

The first thing is, to procure good lime. The best way is to use it direct from the stones as it is ground, before it can have imbibed any moisture. If this cannot be done, then it should be put into tight casks, and kept dry until it is to be used. The sand should be clean, and rather coarse. The proper proportions are one of lime to two of sand.

The ditch should be deep enough to render it certain that the pipe will be below frost: the bottom made true and about eighteen inches wide. A mold, (fig. 2)



Mold for Cement Pipes.—(Fig. 2.)

about five feet long, six inches wide, and three deep, made of smooth inch boards, the sides a little flaring, is necessary to carry the cement in after it is mixed.

The lime and sand should be thoroughly mixed, before any water is put to them; then the water is to be applied to such portion as can be used before it sets, (perhaps two bushels;) and the cement sufficiently worked to wet every part of it, and tempered about like mortar used for plastering. It is then to be put into the mold, and made to just fill it even to the ends; which can be readily done by holding a small piece of board up against the ends, and with a trowel bringing the cement up to the board. Two men, standing in the ditch, receive this mold, thus filled with cement, and empty it on the middle of the bottom of the ditch. A rod (fig. 3) five and a half feet long, and one inch and



Rod for Cement Pipes.—(Fig. 3.)

a quarter in diameter, with a piece one foot long, of the same size, connected to it by a flexible leather pipe six inches long, (a.) to follow, is then laid on the cement, and pressed one-half of its diameter into it. Another mold full of cement is put exactly on the top, and pressed down on the rod, until the two bodies of cement come fully in contact on each side of the rod; the mold being taken off, each man with a trowel

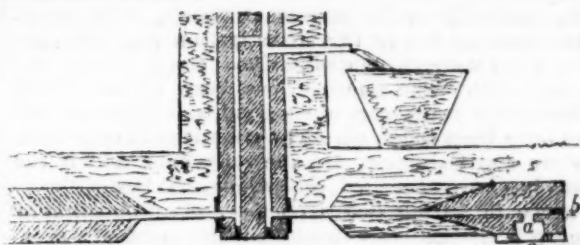
points the sides and perfects the joint, one-half of the five feet. Fine earth is then to be thrown into the ditch, and trampled down by these men on each side of the cement, and about six inches of dirt thrown in loosely over the top. The end of the rod projects beyond the cement far enough for one man to take hold of it, and draw it, the other man placing himself so as to hold on to the sides of the cement to prevent a piece breaking off the end as the rod starts. In drawing the rod, be careful to first roll it a little, then start it endwise, and draw it to the leather, which being flexible, will allow the rod to be turned back over the finished part and rest it against the bank, while another mold of cement is placed on the bottom of the ditch. This new cement must be carefully joined to the old, which by this time will have become quite hard, with the point of the trowel; then turn the rod down on this new cement and, as before, press it into it, and put another mold on top, carefully joining it to the old cement—point it, throw in the dirt, and draw the rod. Any imperfection growing out of the leather part of the rod, will be corrected by the piece of wood that follows. The rod should be perfectly smooth and a little larger at the forward end than it is at the back end, that it may draw easily.

The proper way to attach the pipe to a penstock, is to put a lead pipe, of an inch and a half caliber, about three feet long over the rod, and cover one-half of its length with cement. A flange having been soldered on the end of the lead pipe, nail it to the penstock. If the water is to go down the same penstock, two holes must be bored through and connected with each other near the top, and both of them stopped at the bottom. A lead pipe just like the one described, on the other side of the penstock, will convey the water into the cement pipe, that is to carry it on. This plan of short lead pipes at the penstocks, is the only one known to me that will answer. The penstock may suffer quite a jar and not be put out of order, as the lead will bend. Cement pipes will not bend, but if they are moved they break. The frost is apt to lift penstocks, unless great care is taken to prevent it. The way is to put a frame of timber around the penstock and fill it with old tan-bark up to, and above the tube through which the water discharges. (See fig. 4.)

The proper way to introduce the water into the pipe at the spring, is to put a log some four or five feet long into the spring, with a hole bored through it, but fastened up at the end in the spring; and a hole made from the lower side, and a chamber (fig. 4, a.) some four inches square made in the lower side of the log, and a sieve (c.) to keep out leaves, &c. By this arrangement the sieve never becomes clogged, for the water will not run out of the spring until it is as high as (b.) The other end of this log is hewn off to a point, and the cement put all over and around it, through the wall of the spring, making all tight and preventing decay of the wood.

After the pipe is finished, it should remain slightly covered with earth, for some four or five weeks before the water is let in. The water being let in, careful examinations should be made along the whole length of the pipe, to see whether there is any leak. If there should be any discovered, a little cement will generally stop them; but sometimes, owing to the cement being improperly prepared, or drawing the rod too quickly, the top falls in for a few inches. In such a case, cut the top off the pipe and form a piece of tin of sufficient length, into the proper shape for the top of the tube, and cover it with cement to the same size it was originally. The tin will keep the cement in place until it sets, and that part of the pipe will be just as good as any other. But if care is taken in making the pipe, all this trouble can be avoided.

No experiments have been made that I know of, to test the strength of such a pipe. Last winter, a pipe on my premises, not as large, but of the same caliber, froze up at the point where it crossed a road. This stopped the water, and the pipe filled up to the top of a penstock; thus subjecting it to the pressure of twenty feet, perpendicular of water, and the pipe suffered no



Connection of Penstock with the Pipe.—(Fig. 4.)

injury. My opinion is that, after the cement has become well set, it would sustain a pressure at least equal to the atmosphere.

As to the cost of cement pipes, I can only say that lime commonly costs twelve and a half cents a bushel at the mill, and sand, three cents, delivered. Two men will lay twenty rods in a day, and two men will mix the cement, and deliver it on the bank of the ditch. A bushel and a half of lime is sufficient for a rod. This would make the cost, exclusive of the ditch, and transportation, about fifty cents a rod.

Whenever this pipe is strong enough to sustain the pressure, and a caliber of two inches is sufficient to convey the required amount of water, no other material can compare with it for cheapness or value when completed. No rust or decay is to be feared, and the water is just as pure as though it had been brought in a porcelain pitcher from the spring.

The only objection to the universal adoption of cement to convey water, in this country, is the difficulty of making pipes of large caliber, without using stone or brick to give them strength while the cement sets. But this objection is not so great but that it will ultimately go into general use, for a large pipe can be made of hard brick and cement, much cheaper than of any other durable material. Your friend,

GEO. GEDDES.

Tyler, Onon. Co., N. Y., Nov. 17th, 1845.

.....

Since the above article of Mr. GEDDES, came to hand, we have received two others relating to the same subject. From one of them, signed "FARMER C.," and dated at Manlius, N. Y., we make the following extracts. After having stated that cement aqueducts are almost entirely superceding both wood and lead, he gives the first cost. "Here, the common price for digging ditch, materials, laying aqueduct, setting penstocks, &c., including every expense, is \$1.50 per rod, warranted to stand." The lime is stated to be worth ten cents per bushel. "This cement is probably the best article for an under-ground aqueduct that can be used. Lead only lasts about ten years in this county; and frequently, under barn-yards and through strong soils, not near so long, being destroyed by the acids of the earth." "Farmer C.'s" directions for making these pipes, do not essentially vary from those given by Mr. Geddes. The writer thinks "water should not be admitted into cement pipes under three months after the work is completed, and then they should not be excessively strained by a heavy head of water."

The other communication on this subject, is from Mr. JAS. W. PECKHAM, of Easton, Washington county, N. Y. He states that he constructed a cement aqueduct which has been used more than a year, and says "the convenience and satisfaction already derived from it, has almost repaid the expense of its construction."

THE POTATO DISEASE IN EUROPE.

.....

Durham, England, Nov. 12, 1845.

L. TUCKER, Esq.—The potato disease in this country has now assumed such a formidable aspect as to menace the very existence of that valuable crop. Government has become so much alarmed as to have sent three scientific men to investigate the nature and extent of the disease in Ireland. What they are doing in Scotland, the enclosed papers, from which you may, I should

think, profitably make copious extracts, will show. At the meeting where this investigation was first proposed, £100 were at once subscribed, and it is proposed to raise £500. The queries have been spread among the farmers in every part of Scotland, and numerous answers have been received. The counties of Sutherland, Rosshire and Caithness, are the only ones which the disease has not yet visited; elsewhere, the best authorities agree in stating that a considerable proportion of the crop is irremediably destroyed, and much of the remainder infected. In some places they go so far as to despair of saving enough for seed. Mills for manufacturing potato starch, are daily coming into operation, and work with very great success. It seems clearly established that the diseased potatoes are not noxious either to man or beast. I have myself eaten them without injury.

The form of disease most common, first shows itself as a discoloration upon the skin of the potato. When the skin is removed, there appears a black or brown spongy mass extending more or less toward the center of the tuber.

In the other form an acid is produced which converts the starch into gum and sugar, the water of the potato itself dissolves these, and the whole flows in a ropy mass, like thick honey.

In this last form, they are beyond recovery, and probably useless. In the first, they may profitably be fed to cattle, or be made into starch or potato flour.

Various methods have been proposed for checking, if not remedying entirely, this latter form. The best appears to be to spread them out to dry in thin layers, frequently picking them over, and when it is necessary to pit them, to put them in small pits lightly covered, and having tiles running through them so as to ensure ventilation. Thorough drying and careful picking has, in many instances, seemed to arrest the progress of the disease for the present at least.

Dusting them over with lime and covering with some absorbent material, such as peat ashes, or charcoal, is I believe of some efficacy. The Government Commissioners in Ireland, recommend surrounding each potato with ashes and lime, so that it should be quite distinct from every other. This may do very well for a few hundred tubers, but I apprehend that those who have 500 or 1000 bushels, will not approve of wrapping up each potato in ashes, like an orange in paper. Even if all the ashes were got, and the trouble of packing 500 bushels gone through with, in one week's time they might want picking over again, and then the whole elaborate edifice would have to be demolished.

I have seen few United States papers of late, and therefore know little of the extent of this disease in our country. I hear that it is very bad in Maine and New Brunswick. At any rate, I think that the publication of the enclosed queries would indicate to our farmers the points to which they should direct their attention.

Very truly yours,

JOHN P. NORTON.

.....

The papers accompanying the above letter of our esteemed correspondent, consist of the proceedings of the meeting at which the subscription of £500 was proposed to be raised, to defray the expenses necessary to a thorough investigation of the cause, character and progress of the potato rot, and a circular from Prof. JOHNSTON, detailing the particular points on which information was desired. The investigation was entrusted to Sir WM. JARDINE, for the entomological part, to Dr. GREVILLE, for the botanical, and to Prof. JOHNSTON and Mr. FLEMING, for the chemical and practical part of the inquiry. The circular of Prof. Johnston shows the minuteness and extent to which it is intended to pursue the investigation, and we have reason to anticipate the most valuable results; though, in the language of Prof. J., "it is at present doubtful whether any thing can be done to arrest the disease; and more doubtful still, what can be done, when, and how. If these doubts are to be removed, it can only be by a conjoined scientific and practical, or experimental inquiry."

—[ED. CULT.]

AGRICULTURE OF SWITZERLAND.

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In a letter to the Editor of "The Cultivator," dated

Martigny, Switzerland, 4th Oct., 1845

LUTHER TUCKER, Esq.—Switzerland is not the country in which to look for extensive agricultural investments or improvements; yet something may be learned from an abstract of their modes of deriving a livelihood from the earth. Small as is the country, there can be found within its boundaries nearly every variety of soil, and every variety of product, excepting such only as are peculiar to a tropical climate.

Cheese is perhaps the most common article of agricultural trade; and the cows and goats from whose milk it is made, are to be found upon mountain sides more than four thousand feet above the level of the sea. That of the Grisons, and the district about Gruyere is in most esteem, but neither are by any means equal to English or American manufacture; they are both poorly pressed and poorly kept, and to those who have delicate nostrils, the taste is by no means their least offensive property. Butter is not a general article of consumption, and is principally made for the eating of the summer *voyageurs*. It is only tolerably good at the best, and frequently very poor. By far the best agricultural districts are to be found in the vicinity of the larger lakes, particularly Geneva, Constance, Zurich, and along the borders of the Aar and Rhine. The Italian cantons, and the portions about Lake Neuchâtel, I have not yet visited. The cattle in the flat countries are good, and I have seen many herds of excellent bees fattened upon the river meadows; the mountain cattle are small, stout limbed, mostly of a dark grey color, with whitish noses and bellies, extremely gentle, and well suited to their situation. To the necks of nearly all, whether single or in droves, bells are attached—not our ordinary cow-bells—but properly formed, and good sounding metal, which jingling together upon a hundred hill-sides, make a mountain melody that no traveller in Switzerland can forget. Sheep are rough formed and coarse wooled, though I have tasted very delicate mutton in many districts. Swine are a long legged and long bodied race, of a tawny red color, better fitted for mountain scrambles than for the tooth of a gourmand. Goats have their own excellencies, and constitute the sole wealth of many a mountaineer whose summer pastures are higher than our highest mountains.

The tilled products of the higher regions, are potatoes and oats, with a few turneps, and here and there a bit of hemp. Next after these succeeds Indian corn and cabbage. Still lower, beans and pumpkins, with patches of vines upon the warmer hill-sides, and grass and gardens, and orchards, in the river valleys. Fences, except in the neighborhood of the larger towns, rarely occur, and division of lands is marked by stakes, or by a mere furrow, and sometimes even by less distinguishable bounds. Perfect agreement appears to exist among neighbors in respect to property, and I have seen in the mountains overhanging lake Geneva, peasant men and women gathering crops of *rowen* in a dozen different parties from the same field, where there was no apparent line of division, yet putting their rakes back to back without a word of dispute. Nor was the crop, though limited in individual cases to a spot of only a few rods square, without its value; since every blade was collected with the most scrupulous care, and carried off the field in blankets upon their backs. A few acres constitute wealth, and a half dozen goats make a dowry for a mountain bride richer than as many thousands in the valleys of New-England. One roof covers home and herd, and in the dirtier districts goats and bipeds mess together. Most of the farm labor is done by the women, and I can say little for their dexterity at the work. Implements are in general better than those in use in France. Scythes are short, broad, and of good metal; rakes of wood, and lightly made; forks of wood tipped with goats' horns. Plows, except in the vicinity of the great routes, are of clumsy construction, but do their work well. Carts or wagons, over many hundred square miles of agricultural territory, are things un-

known; mule paths are their only roads, and mules' backs, or those of the women, the only means of carriage. Draining is an agricultural resource little known, and little needed; not so however of irrigation, the proper application of which in particular districts has quadrupled the products of grass lands.

Manures are every where husbanded with the utmost care, and their odors are widely diffused through all the most thriving farm villages. The use of tuns upon wheels to distribute liquid manures is common in the neighborhood of Zurich and Berne. The method of planting field crops is without order, and drilling I have in no instance seen. Potatoes are planted at random in the field, though very thickly; the tops are cut at harvesting and dried for the winter eating of the goats, and the ground dug over thoroughly with an implement resembling our potato-hook, though vastly more rude in its construction. The crops of Indian corn I have seen have been good. It is just now ripening in the valleys, and the last crops of hay are being gathered. Apples of very fair appearance and taste are plentiful in the lower districts, and pears abound on the borders of lake Thun, and along the banks of the Rhone. Plums grow in profusion about lake Zug, of a purple color, the size of the green gage. They are dried in large quantities, and form a considerable article of trade.

The pasturage of the mountains is good but short, and the higher pastures are fed upon during only four or five weeks of the heat of summer. The successive ranges of upper, middle, and lower pastures, are occupied by the herdsmen with their flocks, at different periods of the summer, as the severity of the weather, or scarcity of food may determine. In ordinary seasons, however, the migrations from lower to upper, and upper to lower pastures occur at regular intervals of time, and it is not a little exciting scene, to meet with a troop of eight or ten hundred cows with their noisy bells upon some wild mountain pass, defiling under the marching orders of two or three rough looking herdsmen, to some new pasture ground among the hills. The cheese is made upon the mountains, and in autumn brought down by sledges over the early fallen snows. The best cows are said to yield 30 to 40 lbs. of milk a day, through the summer, and two cwt. of cheese is the average product for the season.

The chalets, or huts of the herdsmen, are rudely built of logs, notched together at the corners, as are our western cabins, with wide sloping roofs, and shingles held in their places by timbers loaded with stones.

It is somewhat remarkable that in a country so little adapted to a general and improved practice of husbandry as Switzerland,—where the hopes of a season may be ruined in a night-time,—should have sprung up one of the first agricultural institutions in the world. I refer to that of M. Fellenberg, at Hofwyl, about 10 miles from Berne. Nearly a hundred pupils are in attendance, from all the different nations of Europe, not a few English among the number. Unfortunately, I lost the opportunity of paying it a visit. Its reputation is in Europe, of the highest character, and the success of M. Fellenberg, both in the practice of husbandry and instruction, undoubted.

A glimpse of Swiss country, as it comes through the window at which I sit, will close my letters for the year. A mile off, across the Rhone, rise mountains whose tops are 6000 feet above sea level; they are just touched with snow upon the crests of the bare limestone; 800 feet down, stunted firs are scattered, and group together thicker and thicker 1500 feet below. Little chalets, and spots of green grass, may be next distinguished; below, precipices and fir forests blend together, and trees with yellow leaves mingle with the evergreen. Further down upon a sloping side of the mountain, is a hamlet of a dozen chalets, all the wealth of whose inhabitants, consists in the goats or cows that browse on the few acres of pasture around them. At the edge of the mountain, cottages of a better character appear, and numerous vineyards. After all, appears the valley of the Rhone, rich in grasses, scattered over with orchards, and across the way a garden filled with corn, and beans, and cabbage, with an occasional holly-

hoek or dahlia—altogether as much like a garden on the Hudson, as you can suppose one to be, under the shadow of the Alps, and on the meadows of the Rhone.

Yours truly,

D. G. MITCHELL.

NEATNESS IN FARMING.

.....

WE have somewhere heard the remark, that with the good farmer, every thing gives way to his business—that utility is all, and appearance nothing;—hence you are not to expect neatness about his dwelling, his doorway being cut up into mud by the farm-wagon and the manure cart, and the contiguity of barns, pig-pens, and kitchen, such as convenience, and not freedom from the peculiar odors of hog-yard and rich manure-heap, may dictate.

Now, to speak bluntly, this is all nonsense. It so happens, that in farming, neatness and thrift almost invariably go together. The same love of order which prompts the farmer to clear his yard of broken barrels, old hoops, fragments of boards and sticks of wood, and whatever else defaces and defiles his premises,—also prompts him to have a place for every thing and every thing in its place, which is calculated to bear upon real and substantial profit.

Some of the very best farmers with whom we are acquainted,—whose eminent success and heavy profits, separate them in this respect in bold distinctness from the rest of their neighbors,—are patterns of neatness; and the touch of their hand in the expulsion of every kind of nuisance is visible all over their farms. Their door yards show that the master is "at home;" the barn-yard, which is not so near the house that all the butter and cheese manufactured is flavored with the effluvia, exhibits the same neatness, even where all the refuse of other places is collected for enriching in due time the rest of the farm. A farmer of our acquaintance, with 160 acres, in whose farm-yard we could scarcely ever discover a wisp of straw in the wrong place, remarked, "O, I don't attempt to make a great deal from my farm—I expend so much in improvements, that my clear profits are only about a thousand dollars a year." Another of those neat farmers, in whose fields, cockle, docks, and chess, obtain no foothold, nor along whose fences a solitary elder bush or nettle is ever seen, raised twenty-seven hundred dollars worth of farm produce at the prices of 1844; and both of these farmers live in Western New-York, where prices are comparatively low, entirely away from the peculiar advantages of market which nearness to great cities gives.

Now, let no one say that these remarks are made at the wrong season of the year, and that nothing can be done for neatness and order in the winter. The same general rule, in some shape or variation, has an almost infinite number of applications. The care of domestic animals in winter, needs pre-eminently the application of this rule. No animal can thrive well in the midst of dirt. Even a pig does not love dirt for dirt's sake—he only happens to be so much of a philosopher, or rather stoic, that he is willing to endure dirt for the sake of a soft and cool bed in summer; for it has been found that these animals thrive better and fatten much faster when kept clean and *well curried*.

Horses and cattle are often neglected in cleanliness. We have actually known some who did not clean the manure from horse stables for months, allowing it gradually to thicken under foot with the accumulating litter till a foot in thickness,—and reasoning doubtless as the boy did who combed his hair once a month, and was astonished that such torture and trouble from the operation could be endured daily by other people. A farmer who does his own chores, can hardly afford to keep his horses so finely as the gentleman of wealth, who has a man for no other purpose; but every one should have his stable floor perfectly clean at least twice every day, once in the morning, and once at night before lit-

tering, and oftener would be better. Remember that the oftener it is done the easier it is accomplished.

There are many other particulars where neatness may be attended to in winter. Gate hinges and gate fastenings often need repair, that they may shut like clock work; boards become loose on old barns and board fences; tools become awkward for use, and need remodelling or renewing; and many other small matters, in doors and out, require attention. We are aware that to many of our readers, who are already examples for others, such hints as the preceding are not applicable—to such we can say that they need not read them—like the man who chiseled on the stone at the fording place, “When the water comes to this stone, it is unsafe to cross.”

CULTIVATION OF FLOWERS.

ADDRESS delivered before the *Aurora Horticultural Society*, Sept. 23, 1845, by DAVID THOMAS, President. Pamphlet, 11 pages.

SOME months since, we noticed the new and prosperous Horticultural Society at Aurora, Cayuga county, and had occasion to allude to the intelligence, taste, and enterprise, which conducted its proceedings. The present address is one of its ornaments and fruits. It is truly an interesting and valuable production. It could not fail to be otherwise, from the talents and long experience of its well known author. Our readers will doubtless agree with us, when we have given a few extracts. The following remarks on the subject of horticulture, furnish some new as well as instructive facts:—

“It might be hard to say what spot of the earth’s surface has furnished the most flowers for our gardens; and whether that spot is located in the eastern or western hemisphere. It is true, the Cape of Good Hope has produced an astonishing number of beautiful plants; but most of them are unavailable to us on account of the severity of our winters; and yet so bountifully has our globe been replenished, that there are more from the colder regions than we can find room for, in our borders. Mountains that extend far to the south, yield us plants from their cold sides or summits. Thus shrubs and trees from the elevated parts of Carolina and Georgia, are generally hardy here; and even *Enothera rosea* from Peru, abides our coldest seasons, and becomes a weed. In this way, or on this principle, Mexico furnishes *Chelone barbata*; Nepal, the *Potentilla formosa*, and the same southern range of the Himalayas, the most delicious fruit of the temperate zone: I mean the peach.

“Plants conform by a kind of instinct, to the climates in which they are indigenous. Thus, on the approach of heat and drouth, the tulip contracts itself into a bulb, and waits for a more genial season to resume its growth. The Auricula, though an evergreen, sleeps safely under the snows of the Austrian Alps, but perishes without protection in the valleys below; and the holly-leaved barberry, another evergreen from the Rocky Mountains, suffers under our milder but more variable winters. We have, therefore, *tender plants* from very cold, as well as from torrid regions.”

The importance of a diversity in soils, to successful garden management, is strongly illustrated:—

“The farmer and the florist act from very different motives, and select very different plants, *nutriment* being the main object with one, and *beauty* with the other. From the fertile plain, and the river flat, the cereal grasses were probably derived, as well as those that constitute our pastures and meadows; and it is worthy of notice that all these delight in calcareous soils. On the contrary, the florist has taken a wider range, and chosen his favorite from every variety of soil: not only from plains and alluvions, but from the cold mountain, the rugged hill, the moist valley, the comparatively barren waste, the shady swamp, and the open marsh. To many of these plants, however, lime is deleterious; and a perfect flower garden ought to represent a diversified country in miniature: shade and sunshine; here a plat of fertile soil, there a tract of bog, near it sterile earth, and yonder a bed of sand. * * *

“When we consider that soils of almost every peculiarity have furnished us with plants, we cannot expect all these delegates to give up their predilections; and consent to grow side by side in the same border. Many, it is true, will do it, perfectly indifferent to soil, satisfied wherever their lots may be cast, and flourishing without abatement; but the wild lupin pines for its bed of sand, and ‘the superb lily’ for its bog. The laurel, so abundant ninety miles to the south, declines in health when removed to our common soil, and eventually perishes as if it were poisoned. The rose-acacia also refuses to flourish where lime abounds, unless lifted above it by engrafting on the common locust.

“Peaty earth, mixed with silicious sand, seems best to agree with delicate feeders, but soils in which peat forms no considerable portion will answer in some cases. Several years ago, I procured a Chinese Magnolia. It flowered once or twice, but became sickly, and its leaves lost their fine green. Being at a friend’s house among the sandhills of Junius, I told him I wanted a bushel or two of the poorest soil of his farm; and got such as Indian corn might grow in, with pale yellow leaves and perhaps a foot high. In the spring I removed all the earth round the magnolia, as well as I conveniently could without disturbing the roots, and applied the steril mass, three or four inches in thickness. In a month, or less, the leaves resumed their fine green, and it has continued vigorous ever since.”

The brilliant effect of cultivating flowers in large masses, is thus vividly depicted:—

“Many of you must have seen, or heard of, the flowery prairies of the west; and have noticed the enthusiasm with which travellers describe them. Now could we not get such glorious flowers for our gardens? Yes, but most of them would grow dim before the superior beauty of our old flowers. I am confirmed in this opinion by what I have seen of them in their native localities; and by examining herbariums of prairie plants. How then, you may ask, is an effect, bordering so closely on the sublime, produced by such means? I answer, because they appear in masses. The greater the multitude and the wider the space, the greater the display; and though within our walls and fences, we cannot equal nature, we can imitate her, for while she presents flowers by the acre, we can do it by the square yard. The snow-drop, crocus, hyacinth, and tulip, may all be employed for this purpose; and when congregated, have the most imposing effect.”

SOIL FOR GARDENS.

With another quotation, we close these extracts, which are only an average specimen of the rest of the address. The following remarks apply strictly to *heavy* soils, which to a greater or less degree, constitute the greatest part of the soils of this country:—

“Away from cities, the comfort of families depends much on the kitchen garden. The soil ought to be dry, rich, and easily pulverized. In this district, it is generally a heavy loam; and other means besides the plow, spade, or hoe, should be used to subdue its stubborn nature. In all cases, it should be well drained. All surplus water, whether on the surface or below, should be led off. Every tendency to poaching or baking should be prevented. Some of you will understand the benefit of ridging the ground in the fall, so that the coming frosts may press in between the particles of every clod, and thrust them asunder; but many persons have yet to learn that the sweepings of the blacksmith’s shop, chip dirt, and old plaster from walls and ceilings—too often thrown into the road—are excellent manures, and at the same time keep the soil loose and mellow.

“Carting in sand is another labor-saving operation. It will last for ages, and prevent many a hard thrust of the spade, or stroke of the hoe. Let me suggest, however, that a stiff soil is broken most by *coarse sand*; and from observation, I incline to believe that one load of this kind will do as much good as several loads where the particles are very fine.

“The effect of *blacksmith’s cinders* when broken and applied; and *burning the soil*, which I have also tried to

some extent, are both remarkable for loosening and fertilizing at the same time; and it may afford some encouragement to reflect that these are permanent improvements—to benefit posterity as much as ourselves. The crops from old coal pits, burnt brush heaps, or the sites of old buildings, will sufficiently illustrate these remarks."

IMPORTANCE OF WELL DIRECTED LABOR.

.....
 "What great effects from little causes spring,
 What wealth does labor well directed bring."

A single stroke of an axe is of little consequence; yet by the continual application of that small power, properly directed, what amazing effects are produced! The sturdy oak and lofty pine do not simply own its power, but whole forests fall before it, and the wilderness becomes a garden.

Industry well directed, will give a man a competency in a few years. The greatest industry misapplied is useless.

As an example, there is my neighbor, Seth Steady, the blacksmith, is not only an industrious man, but his industry is applied directly to one object. His hammer is heard at dawn of day, and the fire blazes in his shop during the evenings, from the 20th of September to the 20th of March. Go to this shop at any time of the day for any kind of work, you are sure to be waited upon. The consequence is, his purse is filled with dollars, and his cellars well stored with provisions, and that's what I call quite comfortable. Although suitably liberal, and enjoying the good things of life as he goes on, ten years of health will enable him to purchase a good farm.

As a contrast, there is my friend Nat. Notional, the busiest and most industrious mortal in existence; as the old saying is, "he has too many irons in the fire," and with all his industry he goes behind-hand.

He has a fine farm, but instead of pursuing the cultivation of it, he flies off and seizes on every new project that occurs.

A few years ago he concluded to give up the dairy business, in consequence of the low price of butter and cheese; sold his cows at a low figure, and purchased sheep at a high rate, for wool then commanded a high price. By the time he had got fairly into the raising of wool, down went the price of wool, and up went the price of butter and cheese. He then sold his sheep and purchased cows again, for cheese was up, and wool was down. Last year, after sowing a number of acres of grain, he resolved to rent his farm, sell the grain on the ground, buy a team and go to hauling; for, by a nice calculation, he had proved that money might be made by it. A team was procured; but after one or two trips, he concluded to sell his team, build a saw-mill, and go largely into lumbering. The dam was completed, the irons procured, and three-fourths of the expense incurred, when by a nice calculation, (for no one makes *nicer* calculations,) he found that an oil-mill would afford the best profit; and to work he went with great industry, building an oil mill. I happened to go there a few weeks afterwards, and the whole organization of the mill was undergoing an alteration, to fit it up for a cotton and woolen manufactory.

A quizzical friend intends to propose to him to abandon that project and enter largely into the manufacture of flour, and I have no doubt that he will readily accede to the proposal.

So with all his industry and expense, he is neither benefiting himself nor the public. Such a course continued 10 years, would sink the best farm in the country.

IMPORTANCE OF DOING BUSINESS IN SEASON.

"Take time by the foretop." Old grandfather Time, so far as I have seen him pictured out in all the editions of the New-England Primer, is as bald as a cobbler's lapstone. The text, therefore, cannot be taken literally. To make it understood right, and it is full of wisdom, is my present purpose. Gentle reader, to "take time

by the foretop," means nothing more nor less than to *do your business in season*.

If you are a farmer, it is particularly necessary that you should "take time by the foretop." The whole of the profits of the farmer depend on his business being done in season. If a week gets the start of you in the spring, you may chase it all summer without overtaking it.

Now for the contrast. There's neighbor Scrabble; he has a good farm, and is a hard working, frugal man; nevertheless he is always behind-hand. He plants his corn when all the neighbors are weeding theirs; it gets hoed but once, because the harvest presses upon him; the early frost generally kills half the weeds do not choke, and the consequence is, off from an acre which ought to yield him 50 bushels, he gets but 15 or 20. Come, Mr. Scrabble, pull up—get your crops in well, and in season; "take time by the foretop," and your labor will be easier by half, and twice as profitable.

C. N. BEMENT.

American Hotel, Albany, Dec., 1845.

CORN-STALK SUGAR AND MOLASSES.

.....
 MR. TUCKER—An opportunity offering, I am induced to send you samples of sugar and molasses from the juice of corn stalks. It is now about seven weeks since this was pressed and boiled. You will perceive that the granulation and drainage is tolerably perfect. 688 lbs. of the chrystalizable syrup was made from one measured acre; and, had it not been from some loss sustained at the first boiling, I believe the amount would have been 700 lbs. Over 100 lbs. per day was made at four successive boilings.

I believe it is in the power of any farmer to make abundance of sugar and molasses for his own use. The apparatus is simple, and within the reach of almost every one; all that is needed is a mill to crush the stalks and express the juice, and three common iron kettles, set in a brick arch, for boiling. Neither is there any mystery or difficulty in the process, but what a little experience would enable any one to overcome. The principal things to be attended to in the boiling are, to be careful to skim, and get the juice well clarified before it comes to a boil; some milk and flour, as recommended by Mr. Webb in your July No. for 1845, facilitates this very much. Some *clear* lime-water is also necessary. We have found that in using the cream of lime, or the lime mixed up in the water, prevents the feculent particles from coming to the surface, and makes it necessary to strain, and occasions much trouble and loss; on the contrary, the *clear* lime water does not have this effect.

It is also necessary to boil as rapidly as possible; the quality of the article and the chrystalization depends altogether on this; and lastly, it is necessary to know when it is boiled sufficiently to granulate. We have this year boiled without a thermometer, and found no difficulty by attending to the directions given in statements formerly published and republished in the reports of the Commissioner of Patents.

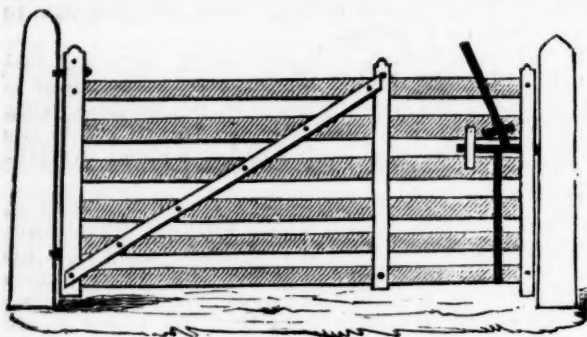
One of my neighbors has erected a mill, &c., and is at this time engaged in boiling. I believe he will fail to make sugar, but is making a satisfactory article in the way of molasses, and I have no doubt will succeed another year.

I have just cut a fine crop of green corn for fodder, grown since the middle of July. My method is to sow three bushels to the acre broadcast, on wheat stubble; plow in, and then harrow well: cut with a grain cradle previous to the first frost. If the weather will permit, leave in the swath a day or so, to wither; tie up in bundles, and shock up, similar to oats or other grain. My practice is to set one in the middle, and eight around it; then cover with one. In this way they stand well, and shed off the rain effectually, and should be left in the field several weeks to cure.

Yours respectfully,

JOHN DEAL.

New-Harmony, Ia., Oct. 14th, 1845.



FARM GATES.

"J. H. S." asks us to insert a plan for "a good substantial farm gate," and in compliance with this request, we herewith give two plans, which, considered in all respects, we think, as good as any we have received.

The one above represented, was received from Solomon Henkel, Esq., of Virginia, and was given in the Cultivator in 1841. Mr. H. considers it a "complete farm gate," and describes it as follows:—"It is twelve feet in length, and five feet in height, counting from the lower edge of the lower slat, to the upper edge of the upper slat. The slats are six in number, one inch by six inches, and twelve feet in length. The heel piece is three by six inches, and six feet in height. The middle and head pieces are three by three inches, and five and a half feet in height. The braces one inch by three inches, and nine feet in length. The slats ought to be made of good yellow pine, or good white oak, without any sap; the braces, heel piece, middle and head pieces, of white oak. The spring, trigger, bolt, and both brackets, are made of locust. The heel piece, middle and head pieces, have each one rivet near each end, so as to keep them from splitting. The braces, one being applied to each side of the gate, are fastened on by six rivets passing through the braces and slats, and join the heel and middle pieces by a shoulder, as shown in the cut. Two rivets pass through the two bottom slats and the springs. Two rivets confine each bracket; and one passes through the middle of the upper bracket, the trigger and slat; making in all nineteen rivets. The spaces between the slats are graduated so as to leave a space of two and a half inches between the two bottom slats, and seven inches between the two upper slats. The whole of the stuff ought to be planed and painted with Venetian red. The hooks and hinges are made of tough iron, not very heavy. The hinges pass through the heel piece, and are secured by taps. The lower hinge is square, having a hole through it, through which the shaft of the hinge is passed up to the eye, so as keep the gate from swagging. The upper hook ought to be somewhat longer than the lower; it ought to be nine inches in length, and bearded on two sides, so as to keep it from drawing out. In order to keep the gate from being thrown off the hooks, it will be necessary to have a tap put on one of the hooks. The posts ought to be made of good white oak or locust; the back post ten feet long, and the front one nine feet. The back post ought not to be less than eighteen inches in diameter at the lower end, and should be sunk in the ground three and a half feet; well filled in with stone at the bottom, and another layer near the surface of the ground; and the balance of the hole should be well rammed with clay. The front post will be deep enough, if put into the ground three feet. The posts, before putting them up, should have the bark taken off, and the upper ends cut to a cone. The bolt may be so constructed as to slide along a level leading to a mortice made on the inner side of the front post. Two locust pins inserted into the front post and projecting two inches, will answer for the gate to rest against.

"Where the gate is to be used to a field, I should prefer hanging it level; but where it is used to a barn-yard or mouth of a lane, I should give it what we here

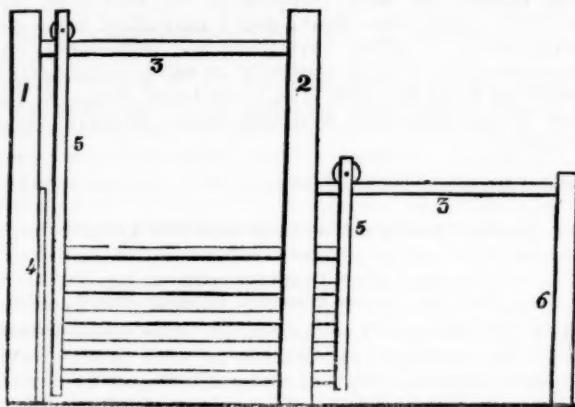


Fig. 6.

call the double swing, so that when it is thrown open, it will remain open without being propped; and when half shut will fall shut of its own weight."

The other cut, fig. 6, represents what is called a "roller gate," which for sections subject to great falls of snow, possesses some advantages over the swinging kind. The plan was furnished by an anonymous correspondent and published in the Cultivator for 1842. The person furnishing it says:—"It makes a firm and lasting gate, with less expense than any I have seen. It saves at least half an hour shovelling snow after every severe snow storm; it plays easily and is not likely to get out of order."

DESCRIPTION.—1 gate-post 4 by 6 inches—2, do., with a mortice the same as the height of the gate—3, 3, rails for the gate to roll upon—4, two slats nailed on post, four inches apart inside, to keep the gate from being pushed either in or out when shut—5, 5, upright posts, 3 by 4 inches, with a mortice in the upper end long enough to admit the rail and a cast-iron or hard wood pulley four or five inches in diameter, upon which the gate hangs—6, is a post set beside the fence merely for the purpose of morticing the rail into. It can be made of any size required.

Another good plan of a gate will be found in vol. ix. of the Cultivator, p. 131.

Since writing the above we have received the following from a correspondent.

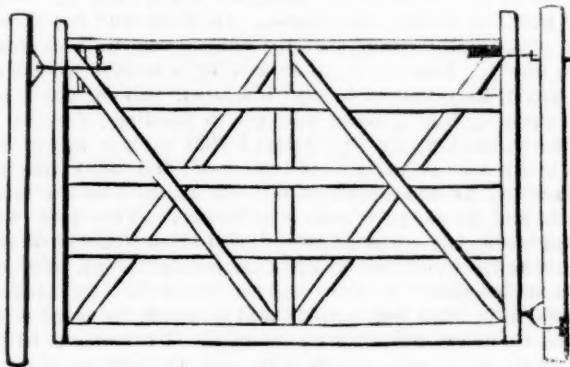


Fig. 7.

MR. TUCKER—The above is a plan for a light and durable farm gate. The slats are of pine, one inch in thickness and three in width. The top piece is of ash, three by four inches at one end, and three by three at the other. The head pieces are oak, three by four inches, one; the other three by two and one-half. The height is four feet and the length ten and one-half feet. The latch is wood, suspended by a chain, and passes through the head piece. A block about one and one-half inches in thickness in the center, but even with the post at the edge, is made to catch the latch as the gate swings to and fro. The lower hinge is cast iron, with two branches resting upon oblong staples driven into the post; when the gate swings one branch supports it. The perpendicular braces are riveted to the slats. The cost is about three dollars.

J. H. C.

Otsego county, 1845.

ORIGIN OF THE MORGAN HORSE.

THE following statement, for which we tender Mr. WIER our thanks, fully confirms the account heretofore given in "The Cultivator," of the origin of this celebrated breed of horses. Our own investigations long since satisfied us of its truth. It will be seen that Mr. W. has been able to add a very important item to the history, having ascertained the pedigrees of both sire and dam of the original Morgan horse.

MR. EDITOR—I noticed in your last number an article on this subject, so interesting to all lovers of a good horse, which closes with an inquiry where the Chelsea horse, the last surviving stallion by the original Justin Morgan horse, now is. In reply to that inquiry, I have to inform you that this horse, for the last ten or fifteen years, more generally known in Vermont by the name of the *Morgan Bulrush*, is now owned by me, and is at this time in good health at my stable in Walpole, New-Hampshire.

For the last fifteen years my business has called me frequently into almost all parts of Vermont, and I have been led to make very extensive and particular inquiries into the history of the Morgan horse. Although there are six or eight, or more, different stories in circulation in relation to his origin, and several of them attempted to be supported by affidavit, yet I perfectly agree with you that the account given by Justin Morgan's son, Justin Morgan 2d, who is a merchant now in business at Stockbridge, Vermont, and a gentleman of intelligence and standing, extended and confirmed by that of Mr. John Morgan, is the only one entitled to belief.

From my correspondence with Justin and John Morgan, and others, I am enabled to state the pedigree on both sides of the Morgan horse. He was foaled in 1793, was sired by *True Britton*, or *Beautiful Bay*, owned by Sealy Norton, of East-Hartford, Conn., and then kept by John Morgan at West Springfield, Mass. True Britton was sired by the imported horse *Traveller*.

The dam of the Justin Morgan horse, at the time he was sired, was owned by Justin Morgan himself, at Springfield, Mass., where he then lived. The dam is described by Mr. John Morgan, who knew her, as of the *Wild-air* breed, of middling size, with a heavy chest, of a very light bay color, with a bushy mane and tail—the hair on the legs rather long, and a smooth, handsome traveller. She was sired by *Diamond*, a thick heavy horse of about the middling size, with a thick, heavy mane and tail, hairy legs and a smooth traveller. Diamond was kept by Justin Morgan himself, at the time the dam of the Morgan horse was sired. He was raised in East-Hartford, Connecticut. His sire was the *Wild-air*, known as the *Church horse*. His dam was the noted imported mare *Wild-air*, owned by Capt. Samuel Burt, of Springfield, Mass. The Church horse was sired by the horse *Wild-air*, imported by Delancy, of Long Island, and, as it was said, was afterwards taken back to England.

Mr. John Morgan describes True Britton as being a high-headed and hollow, or sway backed horse, and his stock of such a description; and states that the *Wild-airs* also, were generally so.

I have ascertained that there is a man now living in Royalton, Vermont, who recollects that Justin Morgan, when taking to Randolph the two years old colt, in 1795, called at his father's tavern in Royalton, and when asked what he was going to do with the colt, said he was going to keep him for a stallion; and recollects remarks that were made upon the colt's heavy mane and tail.

Judge Griswold, of Randolph, also tells me that he was invited by Justin Morgan, the morning after the colt came there, to go into the pasture and see him, and was told he should keep him for a stallion. He also says that the colt came there from the south, and fixes the date in the fall of 1795. Similar facts are also in the recollection of other persons now living in Randolph.

Justin Morgan, senior, died at William Rice's, in

Woodstock, Vermont, in March, 1798. He then had the horse with him, and shortly before he died sold him to Rice, who sold him to Robert Evans, who sold him to Mr. Goss, of East-Randolph, for \$100, to be paid in neat stock in a year without interest: as I am informed by Mr. Rollins, a son-in-law of Mr. Goss, now living in Chelsea, and by others. This Mr. Goss took him to his brothers in St. Johnsbury. He was kept in that family a number of years, and after passing through several other hands, finally died at Chelsea, the property of Mr. Bean. I am satisfied from my inquiries, that these facts can be amply supported by the testimony of many persons now living, from their own personal knowledge.

There were only four of the old Morgan horse's colts kept as stallions. These were the *Revenge*, who died at 24 years of age; the *Sherman horse*, who died at 26; the *Woodbury horse*, who died at 22, and the *Chelsea horse*, or *Bulrush*, now living here.

We also have, in this town, Morgan mares, selected with care for their good qualities, and of the highest Morgan blood now existing, obtained expressly with a view to preserving the Morgan breed in its greatest possible purity.

FREDERICK A. WIER.

Walpole, N. H., Nov. 34, 1845.

EXPERIMENTS WITH GUANO.

LUTHER TUCKER, Esq.—In looking over the Cultivator of Nov. 1845, I observe some experiments with guano, made by Mr. R. Parnell, with no regard to quantity of land or guano, without which I do not think you can make any fair comparison. Having made some experiments by measuring the land and weighing the guano, I herewith hand you the result.

First, I measured three pieces of land adjoining each other, each containing one-fortieth of an acre.

In the drills of the first, I put 5 pounds of guano in the raw state, scattered evenly through the drills, and planted with potatoes, which upon digging yielded at the rate of 215 bushels per acre. In the drills of the second one-fortieth of an acre I put 7½ pounds of guano, or at the rate of 300 pounds per acre, scattered evenly through as before, which yielded at the rate of 207½ bushels. In the third one-fortieth of an acre, I put 10 pounds of guano, or at the rate of 400 pounds per acre, in same manner as above, which yielded at the rate of 212½ bushels per acre. Adjoining the above, I measured another one-fortieth of an acre, one-third of which, the one-one hundred and twentieth part of an acre, I put in the drill as above, poudrette at the rate of \$20 per acre, which yielded at the rate of 142½ bushels per acre. In the next, I put poudrette at the rate of \$40 per acre, scattered evenly through as before, which yielded at the rate of 180 bushels per acre. In the next, I put poudrette at the rate of \$80 per acre, scattered as before, which yielded at the rate of 155 bushels per acre. Adjoining the above, I measured another one-fortieth of an acre, the drills of which I filled with a mixture of horse, hog-pen, and cow-yard manure, in about the quantity that farmers generally use; this last yielded at the rate of 135 bushels per acre.

I would also remark, that I arrive at the cost of the poudrette by what I paid, 12s. per barrel; the potatoes were all planted on the 16th day of March, and were all of the same kind, (Mercers.) The ground, a light sandy loam, broken up last fall, and in very poor heart.

There was a middle sized apple tree stood in one of the furrows of the second experiment of guano, and one in the third of poudrette. There was little or no difference in the size or appearance of the potatoes in any of the drills; the ground I do not think was wet through to the manure from the time of planting to digging; the guano was part of the cargo imported by Messrs. E. K. Collins & Co., in the ship *Shakspeare*.

SAMUEL BRADHURST

Is'ip, L. I., Nov. 17, 1845.

FARM ACCOUNTS.

.....

L. TUCKER, Esq.—As a better system of keeping farm accounts might be adopted, than is generally practiced, I will give an outline of the way in which I keep mine, in hopes that those who pursue no system will avail themselves of its advantages, and that those who have a better will make it known for the public good.

| | | | | | | | |
|------|----|--------------|---|-----|----------------------------|----|----|
| Nov. | 5. | C. Johnson, | 1 | 1 | Drawing manure on heap, | \$ | 36 |
| " | " | W. Stebbins, | 1 | 5.6 | Capping wall bet. 5 & 6, | | 38 |
| " | 6. | C. Johnson, | 1 | 4 | Plowing for barley,..... | | 36 |
| " | " | W. Stebbins, | 1 | 1 | Steaming potatos for hogs, | | 38 |

The first two columns are for the date—the third for the name of the person employed—the fourth for the time employed—fifth, for the number of the lot on which the work is done—sixth, for the statement or synopsis of the work done, and the two last for the amount of the day's wages.

In the first place, it will be necessary to have the farm divided into convenient lots; to have them all numbered, and to have a map of the same. You will then be enabled to keep an exact account of the expense which every crop subjects you to, and decide which are the best and most profitable crops to raise. In order to keep an accurate book, the account should be put down punctually every night after the labors of the day are over, and the time required for this duty will be so trifling that at the end of the year one will consider himself paid an hundred fold in the satisfaction he will obtain upon looking over his book to see what he has done—when, where, and by whom done, and how much he has realized or sunk by the operation.

To the scientific farmer, it will show the course of treatment each field has been subjected to as far back as the date of his book—the time required for the maturing of crops, &c., &c. This book should be considered a part of the realty, and always remain in the possession of the person occupying the farm.

E. V. W. Dox.

ON CURING BEEF AND PORK.

.....

L. TUCKER, Esq.—In your October number, you expressed a wish to be informed of the "results" of curing pork with *hot brine*. My practice is to cut the pork into five or six pound pieces, take off all the lean, and then pack the pieces in a barrel, with a plenty of rock salt at bottom and between the layers. A brine, as strong as salt will make it, is boiled and skimmed, and poured *boiling hot* on to the pork—enough of the brine to cover the pork. When I say a *plenty* of rock salt, I am aware that I speak indefinitely. But I have never measured the salt used. Probably I use half a bushel to a hundred pounds. No more salt will be dissolved than is taken from the water by the pork. What remains after the pork is gone, is as good as new for a second curing. So there is no loss in using more than enough. I have practiced this mode of curing pork for fourteen years with unfailing success.

It is extremely difficult to cure pork that is divested of the lean, with cold brine. The inspection laws of Connecticut direct pork to be salted with thirty-five pounds of St. Ubes, Isle of May, Lisbon or Turk's Island salt, (Rock salt,) exclusive of the pickle "made of fresh water as strong as salt will make it, and three ounces of salt-petre to one hundred pounds of pork." The pickle is always applied cold. Pork for exportation is well preserved in this manner. But it must be remarked, that it is packed with the lean attached. If the lean is all taken off, I have found that it generally spoils, in case it is thick pork.

As my pork is bought in the hog, it always comes to me cooled; so that I cannot speak from experience as to the safety of packing it before the animal heat has left it. But there is good reason for believing that all meats are as well cured before they are cold as after; perhaps better, *provided the salt is properly applied*. Forty

years ago, I met with some important suggestions on this subject in Jackson's "Reflections on the Commerce of the Mediterranean;" which, as appears to me, are worthy of attention at the present day. I therefore send you an extract, in which is described the mode in which beef was cured at Tunis, (coast of Africa,) for the use of British shipping in that port.

"We killed upwards of forty bullocks in the hottest season, and, by observing the following method, never spoiled one ounce of meat. The animal should be killed as quietly as possible. As soon as he is skinned and quartered, begin to cut up in six pound pieces, not larger, particularly the thick parts.

Take half a pound of black pepper, half a pound of red or Cayenne pepper, half a pound of the best salt-petre, all beat or ground very fine; mix these three well together, then mix them with about three quarts of very fine salt; this mixture is sufficient for eight hundred weight of beef.

As the pieces are brought from the person cutting up, first *sprinkle* the pieces with the spice [mixture above described,] and introduce a little into all the thickest parts; if it cannot be done otherwise, make a small incision with a knife. The first salter, after rubbing salt and spice well into the meat, should take and mold the piece, the same as washing a shirt upon a board; this may be very easily done, and the meat *being lately killed, is soft and pliable*; this molding opens the grain of the meat, which will make it imbibe the spice and salt much quicker than the common method of salting. The first salter hands his pieces over to the second salter, who molds and rubs the salt well into the meat, and if he observes occasion, introduces the spice; when the second salter has finished his piece, he folds it up as close as possible, and hands it to the packer at the harness tubs, who must be stationed near him; the packer must be careful to pack his harness tubs as close as possible.

All the work must be carried on in the shade, where there is a strong current of air; this being a very material point in curing the meat in a hot climate. *Meat may be cured in this manner with the greatest safety, when the thermometer in the shade is at 110 degrees, the extreme heat assisting the curing.* A good sized bullock of six or seven hundred weight may be killed and salted within the hour.

The person who attends with the spice near the first salter has the greatest trust imposed upon him; besides the spice, he should be well satisfied that the piece is sufficiently *salted* before he permits the first salter to hand the piece over to the second salter.

All the salt should be very fine, and the packer besides sprinkling the bottom of his harness tubs, should be careful to put plenty of salt between each tier of meat, which is very soon turned into the finest pickle. The pickle will nearly cover the meat as fast as the packer can stow it away.

By this method there is no doubt that the meat is *perfectly cured in three hours from the time of killing the bullock*; the salt-petre in a very little time strikes through the meat; however, it is always better to let it lie in the harness tubs till the following morning, when it will have an exceeding pleasant smell on opening the harness tubs, then take it out and pack it in tight barrels, *with its own pickle*.

Provisions cured in this manner will keep during the longest voyages, are more wholesome and more palatable than any other, and a sure preventive against the scurvy, partly owing to the spices that are made use of in the curing; and also, that a careful cook may always make good soup from this meat, as the salt is very easily extracted; for the same operation which served to impregnate the meat with the salt [molding?] will also serve to extract it."

The subject of curing meats, has not received the attention of chemists as much as the agricultural and commercial interests of the world seem to require. It is a problem of incalculable importance, how we can best preserve both flesh and fish; especially, how we can do it with just salt enough to be agreeable to the palate, without the trouble of extracting it. Pork and

beef hams, we know, may be so cured. Whether the smoking, which those articles receive, is indispensable to their preservation, is by no means certain. What a waste of salt, and of goodness of the meat, and even of the meat itself, (witness the thousands of cattle thrown away, except the hides, in South America,) would be prevented by a solution of that problem.

This article is already too long; I therefore stop. I hope some of your able correspondents will take up this subject. If they do not, you may hear from me again.

NOYES DARLING.

New-Haven, Conn., Nov. 17, 1845.

FARMING IN OHIO.

.....

GREAT CROP OF INDIAN CORN.

I have just returned from a tour through Licking, Delaware, and Franklin counties. In passing through Brownsville, I called on my old friend CHAS. BLANDY, from whom I always learn something new and interesting to the agriculturist. He has just gathered in a crop of corn from three acres of rolling land, which measured a little over 400 bushels—(133 bushels to the acre)—which I think is a very extraordinary crop for this kind of soil. Mr. B. informs me that when he came in possession of this land, eight years since, it was very rough and uneven—it having been used for making and burning brick. After clearing off the rubbish, filling up the holes, and digging 110 rods of under drain, he plowed, manured lightly, and sowed wheat with grass seed. His first crop was only eight bushels to the acre, and that was more than his neighbors expected. Since then it has been occupied as a pasture lot for cattle and hogs. The surface soil was only three to four inches deep, of a sandy loam, and fragments of sand-stone in considerable quantity—the sub-soil of yellow clay and sand-stone—the whole piece rather wet and spouty. He plowed it in October, 1844, ten inches deep, and last spring spread on 100 two horse wagon loads of compost manure from the yard where he had kept his cattle. This manure was made up from the stable, intermixed with coal-ashes, waste fodder, and several courses of saw-dust put on to make it clean and dry for the cattle. This had been accumulating for three years. After spreading this manure, he cross plowed 12 to 15 inches deep, and harrowed thoroughly so that the surface soil and manure was well intermixed with a portion of the sub-soil and completely pulverized.

He planted the corn in rows three feet apart, and two feet in the row—three corns in a hill. The manure being old and rotten, there were no weeds. The corn while young was harrowed once and plowed twice. The corn is a light mixed flesh color, commonly known here as the Pennsylvania corn—long grain and thickly set in straight rows—cob small, of reddish appearance, and the grain very heavy.

I afterwards saw some of Mr. Blandy's neighbors, who performed part of the work on this lot the past season, and assisted in getting the corn in, and what I learn from them is in confirmation of this statement.

.....

BROOM CORN.

The fine intervale lands of the Messrs. Sullivant, near Columbus, have as usual been covered with corn this season, on 400 acres of which has been grown, Broom Corn, by Mr. Eaton, of Chillicothe, who I understand has this season grown the same crop near Circleville and Chillicothe, in all to the amount of 1000 acres, which has been very nicely prepared, put in bales and pressed, and has already gone forward to be shipped to England, where the owner has workmen employed in manufacturing it into brooms.

.....

CROPS OF LAST SEASON.

On all the flat lands in the northern part of Licking, parts of Delaware and Franklin, and considerable portion of the adjoining counties north, the wheat crop of last season was almost a total failure, in consequence of

a frost on the 29th May. I am told that the farmers now have to buy their wheat for family use, and many who early in the spring thought their prospects good for a crop of 400 to 600 bushels, did not get even so much as their seed.

The corn crop was very good, and this is being hauled a distance of twenty miles to Newark to be shipped to the Western Reserve, where they have lost almost all their crops by the severe drouth.

I perceive that business, in sections where they chiefly rely on the wheat crop, has considerably declined. In other places where corn and pork are considerable items of their resources, business is about as good as usual.

In Muskingum county, they think they have little more than half of an average crop of wheat, but what there is, is of superior quality. They have here suffered comparatively, but little with the drouth. They have a new article of export—Hay. It is put into bundles, pressed and shipped to Pittsburgh, paying a good price to the grower, and a profit to the shipper.

JOHN R. HOWARD.

Zanesville, Ohio, Dec., 1845.

WOOL-GROWING ON THE PRAIRIES OF ILLINOIS.

.....

LUTHER TUCKER, Esq.—But a few years since we emigrated from Vermont into this State. We soon became satisfied that wool could be grown much cheaper here than in our own native state. In 1843, we purchased in Columbiana county, Ohio, 2,300, and drove them through by land into this region. In crossing streams without bridges, we managed to take about 50 to the water's edge at a time, and by the aid of two shepherd's dogs, would crowd them into the river. Then these two dogs would go and aid the one that was left to guard the main flock, and urge them all up and into the stream together. They would all swim over without much difficulty. They travelled generally about twelve miles a day.

On our arrival home we let and sold all but 1200. Our rule for letting was for half the wool and half the lambs, and as many sheep returned as let, at the end of the year. We wintered them on prairie hay, and a very little grain fed after the month of February, not to exceed 160 bushels of corn. The first winter we lost about 60, and raised over 400 lambs.

The second winter we fed part of the flock timothy and clover; the balance on wild prairie hay.

Those wintered on the prairie hay did equally well as those fed on the English grasses. We met with considerable losses by dogs the second winter, otherwise the sheep came through finely without grain, except to about 30 stock bucks, wintered by themselves; these we fed a little grain daily through the winter. Our flock at this time amounted to about 1050. We also raised this season over 400 lambs.

The first year our flock yielded a little short of three pounds of wool to each sheep, and sold for 33 cents. This season we sold for 27½ cents per lb., and the yield increased a little over one-fourth of a pound to the fleece.

We procured good rams in Ohio at ten dollars each, said to be full blood merinos. It is no more than justice to acknowledge the increase of our second clip from a lot of 64 lambs got by a yearling buck which we ordered from Vermont, from the flock of S. W. Jewett, said to be a son of this stock buck Fortune. Every fleece from this crop of 64, was weighed as fast as shorn, and we did not find one that sheared less than four pounds. The lot averaged over five and a half pounds. One lamb got by this young buck, and out of a ewe we purchased of Mr. Jewett, which dropped in the month of April, sheared this season, a fleece of eight lbs. fifteen ounces of beautiful wool. We therefore have become satisfied of the difference in breeds of sheep. We might have added that these two Vermont sheep bore the first prize at our state and county shows in 1843 and 1844.

We think our sheep are better washed than we used to clean them in Vermont. Our mode of washing is

cheap and expeditious. We run two fences angling from the stream where we wash, to guide the sheep at the terminus; we build a platform over the river; then by the aid of our dogs run them over this platform as fast as possible to give motion to the water. They are obliged to swim about four rods to strike the opposite bank. Then return them across a shallow place below, where they can wade the stream. We jump them off this plank work into the river three or four times, till we are satisfied they are thoroughly cleansed. In this manner, we might, with two men and two dogs, wash ten thousand, if at hand, in one day.

We cut wild prairie hay from lands owned by government and speculators who do not occupy. On contract it is delivered in our yards at one dollar each ton.

The yearly cost of keeping our sheep cannot be over thirty cents per head. One boy we employ the year at eight dollars a month. He has the sole charge of the flock with the aid of two shepherd's dogs, which we could not do without. They aid in yarding them nights, and keep off the small prairie wolf.

A Scotchman by the name of Mitchel, raises and trains these shepherd dogs from a pair of Scotch collies, imported by Murray & Co. He sells his puppies at about four dollars each.

Yours, &c., TRUMAN & ISAAC HARVEY.

Lasalle, Illinois, Sept. 25th, 1845.

THE POTATO ROT.

.....

MR. EDITOR—Although a farmer on rather a limited scale, it has fallen to my lot to make a few observations relative to the disease called the rot in potatoes, which, were they published, I have thought might be of service to some of the agricultural community.

In 1844, I planted potatoes on three different parts of the farm on which I am situated. From part of one small field, consisting chiefly of a loose, gravelly soil, I obtained about eighty bushels of potatoes. And among these eighty bushels there were probably near a peck of rotten ones. And almost all of these grew on a part of the field which was lower than the rest of it, and where the soil consists, to a considerable extent, of loam and clay. The field I have been describing, was plowed twice before planting; and in that, as well as in the subsequent work among the potatoes, it was my aim to work when the land was in a sufficiently dry state to pulverise well.

On another part of the farm which is nearly level, and where the soil consists to a much greater extent of loam and clay, than the field I have just described, I obtained nearly thirty bushels of potatoes, and out of thirty bushels, there were probably as many as one bushel of rotten ones. The land for these potatoes was also plowed twice; and care was also taken to work the land when dry enough to pulverise.

From a part of the farm which consists chiefly of a side-hill of a loose, gravelly soil, I obtained as many as seventy-five bushels of potatoes; and out of these seventy-five bushels, there were probably not to exceed four quarts of rotten ones. And what rotten ones there were, were almost wholly on a part of the field which is nearer level than the rest, and where the soil consists to a greater extent of loam and clay than the other parts of it. The seed potatoes planted on the last mentioned piece, were many of them of the same sorts as those which rotted so badly in the small and nearly level piece I have before described.

A part of the growing season of 1844, was unusually hot and wet. And these are probably among the causes why so many potatoes rotted that season. From my own experience, and from observations I made this season, (1844,) I came to the conclusion that light, loose soils, and thorough plowings, are among the best means of obtaining potatoes free from the rot. And at the same time it may be said, that rich soils, with such management, are well adapted to withstand any ordinary drouth.

This season, (1845,) the disease among potatoes has assumed a somewhat different aspect in this region of country from what it presented in 1844. In many cases the potatoes which at digging time appeared to be sound, have rotted after being buried in the field, or put in cellars. And while I do not dispute that this result is in some degree attributable to the varieties of potatoes used for seed, yet my observation leads me to believe that much of it is to be charged to the wet, heavy state of the lands on which the crops were raised. And the following is one of my reasons for believing so.

This season I planted near one acre of potatoes on land which consists almost wholly of a light, loose soil. The ground was plowed three times before planting, which rendered it so finely pulverized that the heavy rains of the latter part of the summer had an opportunity to leach down so as not to remain in a superabundant quantity near the top of the ground. Out of this acre of potatoes there were probably not to exceed two quarts of rotten ones; while some of my neighbors who planted their potatoes on partially pulverized, and wet, heavy land, had many of theirs rot, although they had in part, the same kind of seed that I planted.

S. S. G.

Sandlake, N. Y., Nov., 1845.

.....

MR. EDITOR—The potato disease occupies so much of the public attention every where, that the experience and observation of individuals may lead to a solution of this mystery.

Last year we lost but few by the rot. This year but few have escaped. We have lost upwards of 1,000 bushels already. I have examined the various fields about us, and find there is little or no perceptible difference as to soil. The disease has shown itself in every variety of soil in Western New-York where the potato grows.

Still I am not discouraged, nor do I believe there is any more danger of the extinction of the species than of wheat. My own impression is that it is caused by the peculiar state of the atmosphere, and that the evil may be cured in two ways—

1. By early planting, and by using only the early varieties.
2. By cutting the stems or vines as soon as the blight or rust shows itself.

So far as my observation extends, the disease is analogous to the rust in wheat. It has been shown in a great number of cases, by actual experiment, that if wheat be cut as soon as the rust strikes the stalk, the loss is much less than when suffered to stand until it is ripe. If allowed to stand, the kernel becomes light and shrunken, yielding but little beyond bran. The disease appears in both instances in the stalk first, and the destruction of the farina in the tuber and the berry, are but the result of the destruction of the stalk by the disease. It is a species of gangrene which can only be arrested by severing the limb as soon as it appears. The remedy has been quite successful in wheat, and I have no doubt will be equally so with roots. I am the more inclined to this belief from an occurrence in my immediate vicinity. A neighbor had some potatoes planted in a very mucky piece of land, a reclaimed swamp; being in low ground an early frost killed the vines. Some of his potatoes have rotted, while those near by, but upon drier ground, and where the vines were not injured by the frost, have been seriously injured. It was not the soil, for others in like soil, but not reached by the frost, have been destroyed. Again our early potatoes which we grow in the market garden, have not been affected; and generally the early varieties have suffered the least. I can hear of none that have been diseased where the vines died before the blight struck them.

It may be that ours is only an exception; I mention the facts for the purpose of drawing out others on the same subject.

My facts are truth: my inferences may go for what they are worth. Sincerely yours,

T. C. PETERS.

Darien, N. Y., Dec. 12, 1845.

RUST ON WHEAT.

.....

ED. CULTIVATOR—Investigation would seem to have established that *Rust on Wheat* is a small plant of as regular and uniform a growth as wheat; and if such is the fact any speculation on the subject would be useless. But if so, the rapidity of its growth, visible to the naked eye, is truly astonishing, and any information concerning that growth must prove interesting to the community.

Four years ago, the writer had on his farm in Tompkins county, 15 acres of beautiful wheat. The field was the admiration of all who saw it. It stood thick on the ground, was as tall as was desirable; the heads were large and long, and it presented a rich and beautiful appearance. It then promised from 30 to 35 bushels to the acre of superior wheat. This was the first week in July. The weather then became very warm, and for three days there were frequent light showers, with bright sun-shine between them. In the language of the farmer, it was close, oppressive weather. Before the commencement of the rain, there was not the least appearance of the rust upon any of the wheat. On the contrary, it then promised one of the finest and heaviest crops ever raised in this State; but in less than four days the whole field was stricken with rust, and the result was 12 bushels to the acre of shrunken, instead of from 30 to 40 bushels of superior wheat to the acre. The land on which it was grown was a rich clay-loam, with a small portion of gravel, rather moist than otherwise.

The lot is situate near a creek of pure spring water, and during and immediately after the rain, a fog was discovered above the stream—and also above other streams in the vicinity. All the wheat growing near those streams was much injured by the rust—whereas that which grew half a mile distant from them remained uninjured. Seven acres of mine growing on new ground 150 rods from the stream, escaped entirely—but it was sheltered by woodlands on two sides, and the ground for the most part was dry.

The first crop on this 15 acres gave 28 bushels (wheat) to the acre—the second, (oats) 40—the third, (corn) 100 bushels of ears—the fourth, (oats) 40; the fifth, (wheat) after oats the same season, 20—all the finest of grain and no rust to cause injury. It was then stocked down with clover, and summer fallowed the second season for the wheat which was so seriously injured by the rust. If, as is maintained, *Rust* is a plant, whence came it in three days? It was not wafted by the wind, for there was none—it being remarkably calm, damp, warm and sultry, and the sun between the showers, shining intensely bright. But if it be a plant, for its growth so as to injure wheat, it requires calm, damp, warm weather, and such weather must occur when the wheat is in the milk, or the grain soft. Some of our observing farmers say that if the rain is accompanied by wind the rust does not injure the wheat.

My belief is that the rust plant or fungus, whatever it may be, always exists on the stalk of the wheat; but that its growth is not such as to injure the plant unless warm weather and moisture unite at a particular period during the growth of the plant, and that prior to that period it is not visible to the naked eye; also, that during seasons unfavorable for its production it does not attain maturity. If, for example, the grain has passed the milky state and has become in a degree hard, then the rust will not injure it in the least, however favorable the weather for its production may be.

In confirmation of this he would remark, that during the most part of July last, in this section the weather was very dry and warm. Yet about the 15th of the month, we had some wet, warm weather, and the consequence was that most of our fields of wheat were stricken with rust; but the berry was formed when the wet weather commenced, and the wheat was too far advanced to be injured—the rust proved too trifling to cause injury—the wet and warm weather was not perhaps of sufficient duration. The showers were short, and the rust did not so far progress as to stop the circu-

lation of the sap, and the berry obtained the necessary supply.

Our crops of wheat have not been so fine for many years—the berry is large and the wheat of a superior quality. Even the late sown wheat, although affected by the rust, has escaped injury. The berry is not inferior to that sown earlier, but the yield to the acre is not so great by one-fourth. Superior cultivation and early sowing are the best preventives of the injurious effects of rust yet discovered. But the writer believes he has discovered a remedy for the rust, plant or no plant. He is preparing to make the experiment the next season, and if successful the result will be communicated.

He also believes that great crops of wheat may yet be grown as well in the counties on the Hudson as in Western New-York. We shall see.

A FARMER OF TOMPKINS COUNTY.

THE PLUM, NECTARINE, APRICOT, AND ALMOND.

.....

THE PLUM adapts itself readily to almost any soil and situation, and will flourish any where except in a clay, marshy, or very sandy location. A rich friable soil is however to be preferred, and where not so, it should be made so by culture. The plum, nectarine, and apricot, being smooth skinned fruit, are subject to the attacks of the curculio. But if the trees are paved round as far as the branches extend, or are planted in ground that is much trodden, and thus rendered hard and impervious to the insect, or if the ground around the trees is strewed with gravel; the insect will not be able to find shelter there, and consequently the trees will be free from its depredations. The different varieties of plums used in Germany, France, and Italy, for prunes are very productive, and there would be no difficulty, if a proper locality were selected, in establishing extensive and profitable orchards for this object. The plum being exceedingly hardy would command a preference over many other fruits, which do not flourish in an equally northern climate.

THE NECTARINE, APRICOT, AND ALMOND, require a precisely similar soil and culture as prescribed for the peach. The nectarine is equally hardy, and the two latter equally as much so. In this latitude the apricot is most productive when planted in a location somewhat sheltered from the north and west, but many of the robust varieties exact no such precaution.

The culture of the almond could be successfully extended in the states south of the Potomac, and orchards planted there would require no more care than the peach, and would soon by their abundant crops supersede the necessity of importations of this fruit, which are made to a very large amount. Pure Americanism will always aim at the production of every article requisite to our comfort within our own national limits.

Flushing, Dec. 10, 1845.

W. R. PRINCE.

SINGULAR CAUSE OF DEATH OF A COW.

.....

THE noted Hereford cow *Matchless*, which was imported from England by Messrs. CORNING and SOTHAM in 1840, died a few days since from a singular cause. On a post mortem examination, it was found that her death was occasioned by a portion of the skeleton of a calf which was found in the uterus. The bones consisted of several joints of the back, the sharp corners of which, by irritating the parts with which they came in contact, had brought on inflammation and mortification. She had not had a calf nor taken the bull for more than two years, and for more than a year Mr. Sotham had occasionally seen evidences of there being the remains of a calf in her. She probably, however, experienced but little inconvenience from it, till the decomposition had proceeded so far that only the fragments of the skeleton spoken of remained. From not having given milk for sometime, she had become very fat, and but for the circumstance above mentioned, would have been beef of the first quality.



ELM-WOOD COTTAGE, ROCHESTER.—(Fig 6.)

RURAL ARCHITECTURE.

ILLUSTRATED BY PLANS OF ELMWOOD COTTAGE.

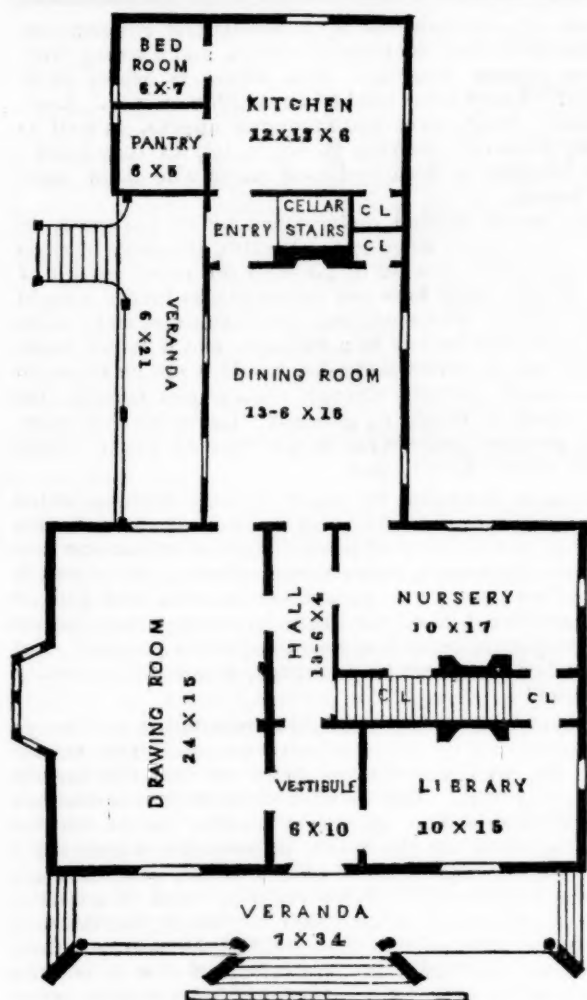
LUTHER TUCKER, Esq.—Agreeably to request, I send you herewith the drawings, plans, &c., of a rural gothic cottage which I built at “ELMWOOD,”—(the title with which my little Rural Home Farm, on Genesee-st., Rochester, hath been dignified,) the last year. After making up my mind to build, my first aim was to get up and adopt that *style* of cottage whose *expression* should most nearly and appropriately correspond with that of the *site* upon which I was to build. My next object was to combine simple elegance, an apt expression of purpose, and utility and convenience of arrangement, with economy of expenditure. How far I have been successful in these particulars, I leave it for good judges to decide; as for myself, I see nothing, as yet, that I could wish to alter. For several years I have taken a deep and lively interest in the study of Rural Architecture, and the modes of beautifying the homes of our rural population. And although in my researches and studies on these subjects, I have consulted London, and most of the standard writers, yet I have derived more interest and profit from DOWNING’S admirable works on those subjects, than from all the others together; and I would here acknowledge my indebtedness to his suggestions and illustrations, for much of the merit of the cottage plan which I here present; and likewise to the skill and taste of MERWIN AUSTIN, Esq., the accomplished architect, who has with such facility taken my own crude notions and suggestions and brought therefrom such perfect symmetry of proportions, beauty of form and elegance of expression, as the plans which he has drawn with so much taste and accuracy, most conclusively show. The spirited pencil drawing was sketched by Mr. Cleveland, an artist of promising abilities.

This cottage fronts the east—the view here given of the elevation, fig. 6, is from the south-east. It stands upon an eminence, about one hundred feet from the street, and has, as will be seen, large, fine, branching elms, and a number of towering poplars, in the back ground and at the right, which add not a little to the picturesque effect of the cottage itself. The site was chosen thus near the public road, because the ground was the highest and best suited for the purpose, and because of the fine large elms and other trees and shrubbery, which have, (the former, at least,) the advantage of a growth of some fifty years. It commands beautiful and picturesque landscape views in nearly every direction—including a fine view of a large portion of the city of Rochester, in the suburbs of which “Elmwood” is situated, a short distance west of, but in full view of the Genesee river and Mount Hope.

The *general contour* or outward expression of the cottage is, I think, in admirable keeping with the rural objects around it. I cannot better describe it than in the

beautiful language of Downing, in speaking of a similar style of cottage. “It belongs to the class of neatly decorated, rural Gothic edifices, abounding in carved verge boards and pendant clustered chimney tops and irregular outlines. There is something indicating a certain license of architectural imagination, not to be precisely measured by the rule and square, or the strictly utilitarian view. Now a cottage of this class must not in any case, be erected on a bare plain, as in such a place all its picturesqueness would seem out of keeping, unmeaning and absurd. But let it be partially hidden, or half concealed by clustering foliage, and assimilated, as it were, with nature, by the interlacing and intertwining branches and boughs around it, and of which its ornaments are in some degree a repetition, and we shall feel it to be in perfect unison with its situation. Whoever has seen one of these cottages, with its rich gables breaking out from among the intricacy of tall stems and shadowy foliage, will readily confess that he has rarely beheld anything more harmonious and delightful, than the charming effect thereby produced. Some one has truly remarked, that the architecture of our dwellings is most appropriate, when it embodies and breathes forth a *home expression*, a character to which we think the rural Gothic, with its quaint, independent, comfortable, and extended air, seems fully to lay claim.”

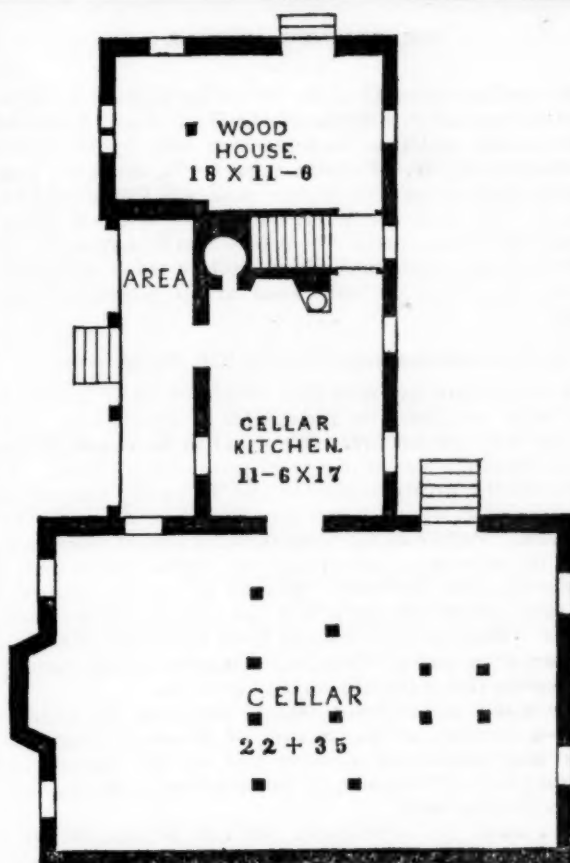
But as to *details*.—The main building is 38 feet front, by 25 feet deep, with a rear addition one story high above the basement, and 34 feet deep by 20 feet wide, (including the side verandah,) with a wash kitchen and woodhouse underneath, opening out nearly on a level with the ground, owing to the slope of the back-ground. The height of the first story in the main building is ten feet in the clear; second story, eight feet, excepting where the pitch of the roof reduces it to about six feet, only in the room from which the front gable projects, which is full height. The front verandah is about 7 by 34 feet, with steps in front and at either end, and lattice ballusters between. The vestibule is lighted by glazed panels in the front door; and light is thrown into the back hall through the glazed door between it and the vestibule, and through a like door between the hall and dining-room. The drawing-room or parlor is 15 by 24 feet in the clear, besides the bay-window, which is 2½ feet by 8, making the drawing-room 17½ feet wide across the centre; this room, and also the vestibule, are neatly corniced, and the latter has a handsome rosette, in the centre of the ceiling, from which is suspended a hall lamp. The pleasant bay-window is designed to look out upon a pretty flower-garden on the south of the house, and the view from the rear window will be most charming by converting a portion of the rear verandah (upon which it looks,) into a conservatory for plants; it will also make the view through the windows of the dining or living room, into it, very pleasing and agreeable. The neat, pleasant little library (10 by 15 feet,) is my favorite room, and may be used for a recep-



First Floor.—(Fig. 7.)

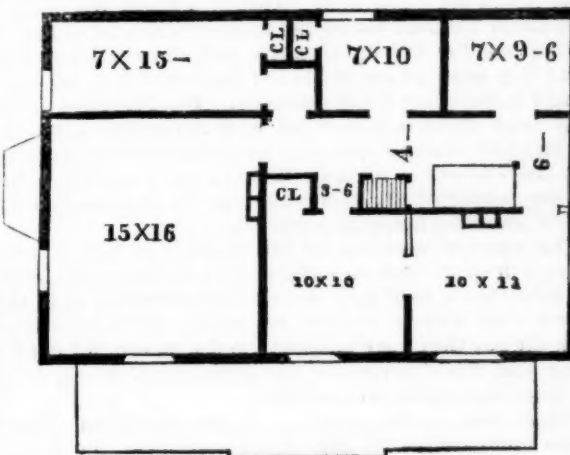
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The outside is covered with sheathing of pine boards, one inch thick and ten inches wide, tongue-and-grooved together, and nailed vertically to the frame, and the joints covered by strips or battens, three inches wide. In speaking of this kind of covering, Mr. Downing says:—"We suggest this mode as a variation, as it



Basement.—(Fig. 8.)

makes a very warm and dry house, and the effect is good." The outside is painted three coats, of a mellow shade, and smalted with best lake sand.—The cluster chimney-tops are constructed of bricks moulded into shape for the purpose. The glass in the windows are cut diamonding. The large gothic window in the front gable opens down to the floor, through which you pass out of the chamber on to the balcony over the porch to the front door.



Chambers.—(Fig. 9.)

I have been thus minute in giving the details, so that any one can judge of the style of finish and convenience of arrangement which may be obtained at a comparative small price. The whole expense does not exceed \$2,500, including a hot-air furnace, which costs about \$150. I contracted to have every thing finished complete for something less than the first sum.

Yours with respect, THOS. H. HYATT.
Rochester, Nov., 1845.

PRESERVING EGGS.—A pint of lime and a pint of salt, mixed with a pail of water, is said to preserve eggs for any reasonable time.



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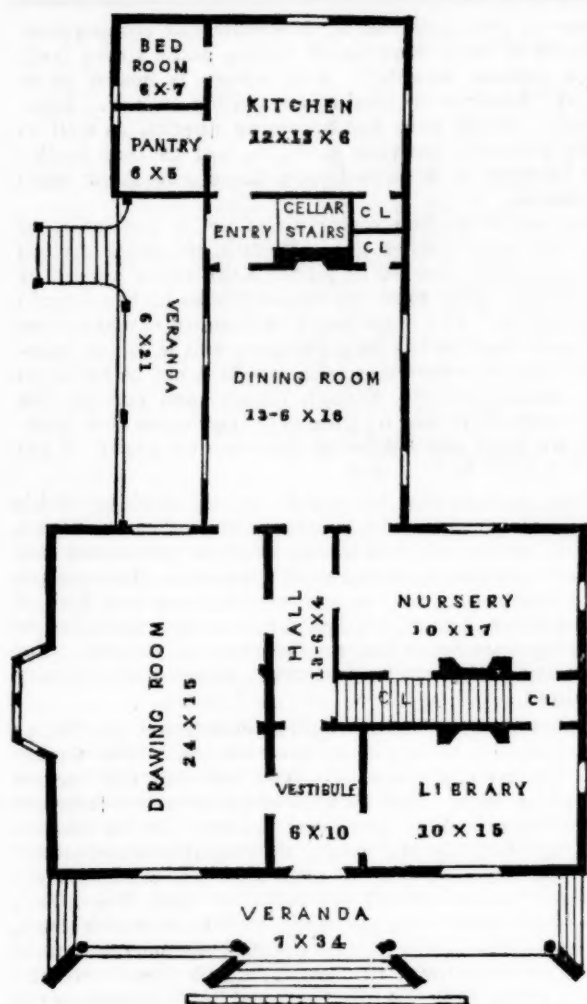
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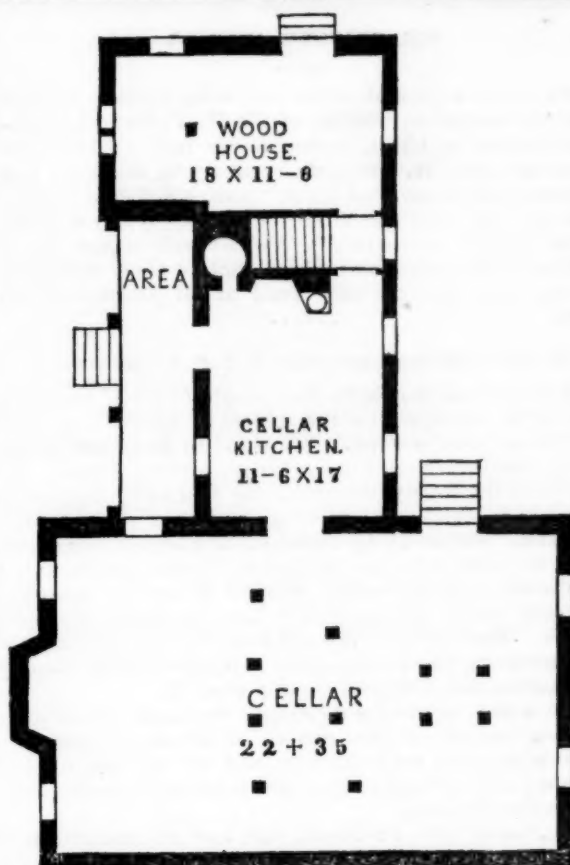
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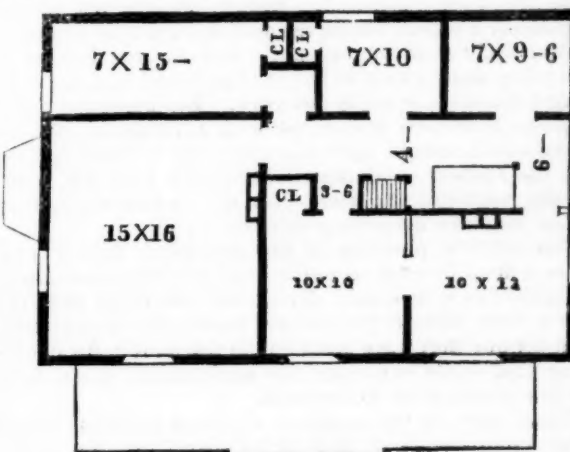
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The outside is covered with sheathing of pine boards, one inch thick and ten inches wide, tongue-and-grooved together, and nailed vertically to the frame, and the joints covered by strips or battens, three inches wide. In speaking of this kind of covering, Mr. Downing says:—"We suggest this mode as a variation, as it



Basement.—(Fig. 8.)

makes a very warm and dry house, and the effect is good." The outside is painted three coats, of a mellow shade, and smalted with best lake sand.—The cluster chimney-tops are constructed of bricks moulded into shape for the purpose. The glass in the windows are cut diamonding. The large gothic window in the front gable opens down to the floor, through which you pass out of the chamber on to the balcony over the porch to the front door.



Chambers.—(Fig. 9.)

I have been thus minute in giving the details, so that any one can judge of the style of finish and convenience of arrangement which may be obtained at a comparative small price. The whole expense does not exceed \$2,500, including a hot-air furnace, which costs about \$150. I contracted to have every thing finished complete for something less than the first sum.

Yours with respect, THOS. H. HYATT.
Rochester, Nov., 1845.

PRESERVING EGGS.—A pint of lime and a pint of salt, mixed with a pail of water, is said to preserve eggs for any reasonable time.

MR. QUINCY'S ADDRESS.

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WE invite a perusal of the following address delivered at the annual exhibition of the N. Y. State Agricultural Society at Utica, in September last, by Hon. JOSIAH QUINCY, Jr. It truly speaks "in thoughts that breathe and words that burn;" and we feel confident that no one will rise from its perusal without being made "wiser and better." We esteem it a *New Year's Gift* of great value, and which, unlike many new-year books, may be profitably read at all seasons of the year.

.....

Mr. President and Gentlemen of the N. Y. S. Ag. Society :

If there were any spot that would of itself inspire a man with eloquence on the subject of agriculture, it is the one we now occupy. We stand in the center of the agricultural district of the great state of the Union. In full view the lovely valley of the Mohawk, famous in history and celebrated in song, stretches away to the distance. Before us, by thousands and tens of thousands, stand the men who have felled its forests and caused it to blossom like the rose. Around us are the proofs of the skill and intelligence that have characterised their labors. Beneath us is the soil from whose maternal bosom we draw our subsistence. Above us is the canopy of Heaven that stretches equally over all.

We stand in the great temple dedicated to agriculture—a temple, at the raising of whose columns the "morning stars sang together and all the sons of God shouted for joy"—a temple, not made with hands, eternal as the Heavens.

But, alas! Mr. President, the age of inspiration is passed, and I never felt a stronger desire to ask the kind consideration of an audience, than when, under rather unusual circumstances, I now rise to address you. The exhibitions of agricultural skill and agricultural success, which we have witnessed on this occasion, have impressed the truth most deeply upon my mind that it was hardly worth while for the New-York State Agricultural Society to send all the way to Boston, to get me to instruct the New-York farmers in the management of their farms. If I indulged any hopes that the agricultural knowledge conveyed in this address would cause two blades of grass to grow where but one grew before, those hopes are dissipated. And to prevent any disappointment, I would assure the audience, that as to flocks and dairies, the raising of cattle and the cultivation of corn, they must go on in the old fashioned way for anything I have to say to the contrary. But there are other subjects of interest connected with agriculture, and no one can look around upon this assembly without feeling that the Farmer is of more importance than his farm; and the results of the occupation on his character, than any of its more material products.

The relative position of the American farmer possesses a deep interest to individuals and the community. To individuals, as it may decide the wavering as to the course they should pursue, or render them contented with the one they have adopted; to the public, for everything that tends to elevate the agricultural class, is of the first importance to the state.

What then is the position of the American farmer when compared with that of the merchant, the politician, the lawyer? Should he be content with his lot for himself and his children? Or should he leave his occupation and adopt some other? Like every other position, that of the farmer has its dark side as well as its bright one. And to decide on its comparative advantages, we must inquire what is the object of man's existence, and how shall he attain the end of his being?

To these questions, history and revelation, the world around and the spirit within us, answer, that the object of man's existence is happiness. Happiness here, and happiness forever. And the condition of that happiness is the diligent and proper exercise of his affections and his faculties. If this be the case, does the situation of an American farmer offer a fair opportunity of insuring this happiness?

To be happy is the object of life, and all that the

world can give towards it, is health and competence. "Health of body is above all riches, and a strong body above infinite wealth." And where is health to be found? There is no need of an audible answer. Look around. Bright eyes and blooming cheeks, as well as strong arms and untiring strength, tell us that earth's first blessing is bestowed upon those who labor upon her bosom.

But health is often undervalued by its possessor, or only appreciated when lost. Wealth, the more obvious and immediate reward of labor, is the chief pursuit of the active. And here the farmer thinks he has a right to complain. The merchant will sometimes make more in a year than he can in a lifetime; and it is not wonderful that he sometimes asks, would it not be better to leave small rewards, though regular and certain, for the chance of obtaining greater? To decide this question, we must ask—What is the price he pays? What is the reward he obtains?

What is the price he pays? To say nothing of his moral exposures, in the great majority of cases, health of body and serenity of mind. Follow such a one into the crowded streets, or the close workshop. His strength for a time sustains him, but confinement and bad air soon deprive him of his healthful energy, and disease and premature decay become too often his portion. But supposing health can be preserved, where is his serenity of mind?

The risks attendant on rapid accumulation are always in proportion to the chances of success. The farmer sows his seed, and has no doubt but that the harvest will repay him. But he who embarks in speculations that promise sudden and great wealth, knows that he may be "sowing the wind, to reap the whirlwind." And the constant fear of such a result, embitters his days and renders his nights restless. And if attained, success gives but little satisfaction. The higher the rise, the wider the horizon; the greater the accumulation, the more exorbitant the desire. And this is not the extent of the evil. A total want of independence is too often the result. Few men in our community have those resources that will enable them to carry on extensive operations on their own means. Almost all depend upon borrowing, and "the borrower is a servant unto the lender." But even if success should be the portion of the aspirant for riches, when is he to attain to it? Does it come forward to meet him? Years of anxiety may be repaid by wealth; but how seldom is this the case. More than ninety in every hundred, even in regular mercantile pursuits, fail. There are but few capital prizes in this lottery. The name of the fortunate holder may be seen at every corner, but where are the ninety and nine who draw blanks? And if attained, how uncertain is its possession! Wealth "gotten by vanity," (by which, I suppose, Solomon meant speculation,) "shall be diminished, but he that gathereth by labor shall increase," is a doctrine as true now as when first delivered; and is one which the experience of every age tends to corroborate.

And after all, what is the advantage of great wealth, or, what is great wealth itself? It exists only in comparison. "A man is as well off," said the great capitalist of the United States, "who is worth half a million of dollars, as he would be if he were rich." And one of the satirical papers of the day tells us, that when Baron Rothschild, the Jewish banker, read that the income of Louis Phillippe, was only fifty dollars a minute, his eyes filled with tears; for he was not aware of the existence of such destitution. After the comforts of life are supplied, wealth becomes merely an imaginary advantage, and its possession does not confer any material for happiness, which an industrious and forehanded farmer does not possess. "We will conquer all Italy," said Pyrrhus, to his prime minister, "and then we will pass into Asia; we will overrun her kingdoms, and then we will wage war upon Africa; and when we have conquered all, we will sit down quietly and enjoy ourselves." "And why," replied his minister, "should we not sit down and enjoy ourselves without taking all this trouble?" And why may not you, it may be said

to many an aspirant after wealth, enjoy in reality all you seek, in your present condition?

"Give me neither poverty nor riches," was the prayer of one of the sages of antiquity. And Lord Bacon, the wisest man of modern times, says, "seek not proud riches, but rather such as thou mayest get justly, use soberly, distribute cheerfully and leave contentedly." And can there be a truer description of a farmer's fortune? There is no greater independence than that possessed by a contented fore-handed farmer. "Tell your master," said a Roman general, to the ambassador of the king of Persia, who came to bribe him with great wealth, and found him washing the vegetables that were to constitute his dinner with his own hands, "tell your master that all the gold in Persia, can never bribe the man who can contentedly live upon turneps."

And the answer was as true in philosophy, as it was elevated in patriotism. To be happy, man must limit his desires. And when he has sufficient for his needs, should remember that the temptations and perplexities incident to overgrown wealth, more than counterbalance its seeming advantages. Health of body and competence of estate are all the requisites for organic happiness that the world can bestow. And to say that agricultural pursuits are eminently calculated to insure these, is only to reiterate the language of past ages, and to repeat the testimony of our own. If you leave such pursuits, the hazard increases as the profit augments. The amount of the premium is always proportioned to the greatness of the risk.

But health and the conveniences of life are not all that a man requires to make him happy. He desires to be useful, he wishes to be esteemed. And what profession can boast of a higher claim to utility than that of the farmer? The greater part of mankind must be agriculturists, and on their character the well-being of every state must depend. Our free institutions are valued, but how shall they be preserved? By the virtue of the people. History gives no other answer. No truth is more clearly emblazoned on her pages than that if a nation would be free, they must be intelligently virtuous. And here the agricultural class become of the first importance to the state. The influence of a virtuous yeomanry on her character, like that of the air on the individual, are seen in the strength of those who are unconscious of its presence.

But they have still a further power. If, "when the righteous are in authority, the people rejoice," they who by their numbers hold the gift of office, have an influence second to none in the republic.

The political influence of the agricultural class, is an important but a dangerous topic before an audience like the present, as particular applications may be made of general observations. To prevent such a consequence, I would illustrate my meaning by reference to the oldest political disquisition in existence, which is remarkable as showing the similarity of political aspirants in all ages; and which, as it was written two thousand years before the discovery of this continent, can hardly be supposed to refer either to the advocates of Texas or the tariff.

It is more than three thousand years since Jotham called to the men of Shechem, to listen to a parable: "The trees of the forest went out to choose a king over them; and they said unto the olive tree, 'reign thou over us.'" The answer shows who was meant by the olive. "Should I leave my fatness wherewith by me they honor God and man, and go to be promoted over the trees?" It was the answer of a religious and conscientious man, who feared that public station would not be favorable to the virtues which were the objects of his life.

"And the trees said to the fig tree, come thou and reign over us; and the fig tree answered, should I forsake my sweetness and my good fruit, and go to be promoted over the trees?" Could a better personification have been found of a close, calculating man, who looked out for the main chance, and took special care of number one? It was his own sweetness and good fruit that influenced his decision. The emoluments of office such a one knew were small and precarious; and

as for honors he would not give a fig for the whole of them.

"Then said the trees to the vine, come thou and reign over us." The vine was one of your popular fellows who can take hold of any thing to help himself up; who is always on the fence, when nothing higher offers, and who, too pliant to stand alone, will run well if properly supported. But his vocation was "to cheer the hearts of gods and men," and as office-holding and popularity did not agree very well together, he declined the honor.

"Then said all the trees to the bramble, come thou and reign over us." There were two reasons why this call alone was unanimous. He had nothing particularly to do, and he kept himself perpetually before the public. He had nothing particularly to do, he had neither wine nor oil, beauty nor sweets to recommend him. He was a fit representative of a class who then existed. Nobody could tell what they were made for, and nobody could divine what they followed for a living. But yet the bramble was not one to be forgotten. He was always before the public. He planted himself by the wayside, and caught hold of everybody that passed; there was no getting along for the bramble; and it may be that they made him king, on the same principle that young ladies sometimes marry an importunate lover—to get rid of him. And how did the bramble receive his nomination? Did he distrust his powers or decline the office? Oh no! He was up for everything, and up to anything. He could not boast much of himself, so he strove to magnify his office. "And the bramble said, if, in truth, ye anoint me king over you, then come and put your trust in my shadow; if not, then let a fire come out of the bramble and devour the cedars of Lebanon."

Such was the opinion of Jotham, three thousand years ago, on the probable feelings and conduct of rulers who were placed in authority without the requisites for office. He believed that a fire would go out of the bramble to destroy the noblest and most elevated in the land. By the bramble he meant Abimelech, who was elected king of Shechem, because his mother was a native of the city. His course was as Jotham had foretold; a fire did go out of the bramble. He slew three score and ten men of his brethren on one stone. And as for Shechem, he took occasion of their revolt, and put every man, woman and child to the sword, burned the city with fire, sowed it with salt, and left a warning to future ages, of the danger of putting, through folly or affection, improper men into office.

If now, as formerly, the prosperity of the state is so intimately connected with the character of the rulers, how great is the power, and how evident the duty of a class of men, who removed from the immediate struggle, hold, by their numbers, the gift of office. If, they are faithful, our republic will have a stability that no one before it has possessed. If, doubting their importance, they neglect the trust committed to them, they may learn, too late, that they have sold their country's birthright; and when they would recall the blessing of their fathers, they may find there is no place for repentance, though they seek it diligently and with tears.

But perhaps it will be said that the agricultural class, though collectively powerful, are individually of small comparative importance. Together they may be likened to the ocean that supports a nation's navy and tosses it from its bosom, with as much ease as it wafts a feather. Still the individual is but a drop, resembling others so nearly as to attract neither notice nor admiration. But this is not peculiar to this class. It applies equally to all. Few, from the very definition, can be distinguished.

But of all the professions, it appears to me that the farmers are the last who ought to complain that, as a class, they do not receive a full proportion of the honors of the republic. Our chief magistrates have differed in many points, but they have generally agreed in this; that before, and in many cases after the election they have been farmers. There was the farmer of Mount-Vernon, and the farmer of Monticello; the far

mer of the North-Bend, and the farmer of the Hermitage; the farmer of Tennessee and the farmer of Ashland; the farmer of Lindenwald and the farmer of Marshfield. So that it well may be urged, that though all the farmers can't be presidents, all the presidents must be farmers.

But besides this there are in agricultural life great opportunities of individual usefulness. The effects of example and precept extend farther than we can imagine. When you throw wheat into the ground, you know what will be the product; but when you exemplify or inculcate a moral truth, eternity alone can develop the extent of the blessing.

About a hundred years ago there lived in Boston a tallow-chandler. He was too ignorant to give and too poor to pay for his children's instruction, but he was a wise and an honest man, and there was one book, upon whose precepts he relied, as being able to instruct his children how to live prosperously in this world, as well as to prepare them for another. We are told that he daily repeated to them this proverb: "Seest thou a man diligent in his business? He shall stand before kings." In process of time this tallow-chandler died and was forgotten. But the good seed had fallen upon good ground. One of his little boys obeyed his father's instruction; he was diligent in his business, and he did stand before kings, the first representative of his native land! He lived as a philosopher, to snatch the lightning from heaven; as a statesman, to wrest the sceptre from tyrants. And when he died, he confessed that it was the moral teachings of his father, added to the little learning he picked up in a town school at Boston, to which he owed his success, his happiness and his reputation. He did what he could to testify how sensible he was of these obligations. He bequeathed liberally to his native city, the means of inducing the young to improve their advantages, and to enable the industrious to succeed in their callings. And he erected a monument over his father to tell his virtues to another age. But the glory of the father was in the child. His son's character was his noblest monument. The examples that son set, of industry, perseverance and economy, have excited and are exciting many to imitate them. And thousands, yet unborn, may owe their success and happiness to the manner in which a text was enforced, by a poor tallow-chandler, upon Benjamin Franklin.

But, being useful and profitable to others, is not the only advantage of a farmer's life. He who is wise may be profitable to himself. In the most busy agricultural life, there are hours that can be devoted to intellectual improvement. And I confess, in my ideal of the American farmer, much more is included than the regular, systematic performance of the routine of plowing and sowing, reaping and gathering into barns.

I cannot satisfy my imagination with the hard working man, who, after toiling through the day, has no thought at its close, but to satisfy his animal nature and to sleep. No, the man who cannot find some time for the cultivation of his intellect, is in a wrong position; and does not improve as he might the situation in which he is placed. This it is, that spiritualizes his labor and raises him above the brute that labors for him. I do not expect him to be learned on subjects for which he has no occasion; but if he enjoys the priceless boon of health, let him know something of that most wonderful instrument, his own body,—that if that "harp of thousand strings" should fail, he may with some intelligence repair the evil. Let him know something of the physiology of the vegetable world; and every blade of grass and ear of corn will speak to him of the benevolence and skill of the Great Contriver. Let him not enjoy the sunshine without some knowledge of the laws of light, or see his field drinking in the dew, without understanding its adaptation to the purposes of nutrition. It is in the power of every man to reserve some portion of his time for these pursuits; and he will find that every addition to his stock of knowledge will make his walks the pleasanter, the flowers the sweeter, and every thing more full of interest and meaning.

But there is something superior to intellectual pleasure; and can a sphere be better adapted to a progress in the moral qualities than the one he occupies? Every situation must be a scene of trial. Yet different states have different temptations. The difficulty of entering the narrow path, is not, in every case, likened to the passing of a camel through a needle's eye. Agricultural life has few temptations—no risks are run in its pursuit—no deception is used in its progress—no concealment is required for its success—it is open, manly, straight-forward. It depends on no one's favor; it rests on no one's promise, excepting His, who has said, that "while the world endureth, seed time and harvest, summer and winter, shall not cease." And while free from temptation, such a life gives ample scope for the exercise of all those duties that elevate man, while benefiting his race. It is not required of many men in a generation to do some great thing for themselves or for their country. It is the little every day duties and habits that mark the character. It was not in the shouts of multitudes, that the old patriarchal farmer delighted. But it was "when the eye saw him, then it blessed him; and when the ear heard him, then it bore witness of him." The opportunities of exercising the elevated virtues are ever present to the independent farmer. Like the patriarchs of old he stands at the head of his family. Like them, he should rule his household after him,—instructing, consoling, supporting.

And there are others dependent upon him, who owe their comfort and well-being to his care; and whose dependence may be the means of awakening sentiments, that even religion has not overlooked. When the great lawgiver of the Jews led them from the house of bondage, and by divine command established them as an agricultural people, his laws recognized the advantages of such a life for the formation of character. To remember and love the Giver, and rejoice before Him, in the spring-time and in the harvest, on the anniversary of their deliverance and on festal days, was the first and great commandment, and the second was like unto it. Love and kindness to the neighbor, to the stranger, to the widow, to the fatherless, were enjoined as congenial duties. But the directions stopped not here. The brute creation of every kind shared in his remembrance. The Sabbath was to be observed, "that thy ox and thy ass may rest." And when the harvest was gathered in, the mute and patient laborer was not to be forgotten: he should share the grain for which he had toiled, and the command, "thou shalt not muzzle thy ox when he treadeth out the corn," secured to him at least a portion.

But freedom from temptations, and opportunities of exercising the virtues, are not the only facilities that an agricultural life offers for the formation of an elevated character. The scenes that surround it, the unceasing regularity of cold and heat, summer and winter, seedtime and harvest, cannot but lead the observing mind up to their Author. In no crowded workshop his time is spent. The broad fields and the high mountains, and the running streams, diffuse health and cheerfulness around. No smoky lamp sheds a doubtful glimmer over his task; the glorious sun sends his rays for millions of miles to warm, and enlighten, and gladden his path. The religious sentiment is nowhere so naturally developed as among rural scenery. How great is the charm that agricultural allusions throw over sacred poetry! It was a youth spent in rural scenes, that enabled the sweet singer of Israel to touch a chord, responsive to every human heart.

The voice of the son of Jesse is always sweet, but how different its tones from the various situations of his eventful life. The shepherd-boy, keeping his father's sheep, is filled with adoration as he gazes on the majestic scene above, and exclaims, "what is man that thou art mindful of him, or the son of man that thou visitest him?" Or, rapt with love at the care of the Creator, reminding him of that which he himself exercised towards the objects of his charge, he bursts out, "the Lord is my shepherd, I shall not want." His voice, too, comes to us from the palace and the camp: from the statesman and the warrior; but in a tone how altered. The innocence and faith of the shepherd-boy,

have not preserved him in more trying scenes. The wailing of the adulterer and the murderer; the prayer for deliverance from blood and guiltiness; the remorse, the despair of conscience, are there. And well may he exclaim, as he looks back upon his early days and his later career, "Oh! had I wings like a dove, then would I fly away and be at rest."

But some one, smarting under ills that are common to every lot, may say, "in description a farmer's life may be poetic and delightful; but we want to be rich; we want to be powerful; we want to look down upon others. That is happiness; that is the usefulness to which we aspire. I am ambitious, and avaricious and envious. I have no scope here: I can never be happy as a farmer." And in what position can you be happy? Where do these feelings produce aught but misery? An ambitious, avaricious, envious farmer cannot be happy on his farm, for it is a law of man's nature that no outward situation shall satisfy a disordered mind. And of agricultural pursuits no more can be said than is alleged of godliness by the apostle, "with contentment, it is great gain."

What, then, is the conclusion of this whole matter? The agricultural life is one eminently calculated for human happiness and human virtue. But let no other calling or pursuit of honest industry, be despised or envied. One cannot say unto another, "I have no need of thee;" and to every one there are compensations made that render all, in a great degree, satisfied with their lot. Envy not the wealth of the merchant; it has been won by anxieties that you never knew, and is held by so frail a tenure as to deprive its possessor of perfect security and perfect peace. While your slumbers have been sound, his have been disturbed by calculating chances, by fearful anticipations, by uncertainty of results. The reward of your labor is sure. He feels that an hour may strip him of his possessions, and turn him and his family on the world in debt and penury.

Envy not the learning of the student. The hue on his cheek testifies of the vigils by which it has been attained. He has grown pale over the midnight lamp. He has been shut up from the prospect of nature, while sound sleep and refreshing breezes have been your portion and your health.

Envy not the successful statesman. His name may be in every one's mouth. His reputation may be the property of his country; but envy and detraction have marked him. His plans are thwarted, his principles attacked, his ends misrepresented. And if he attain to the highest station, it is to feel that his power only enables him to make one ungrateful, and hundreds his enemies, for every favor he can bestow.

Envy no one. The situation of an independent farmer stands among the first, for happiness and virtue. It is the one to which statesmen and warriors have retired, to find, in the contemplation of the works of nature, that serenity which more conspicuous situations could not impart. It is the situation in which God placed his peculiar people in the land of Judea, and to which all the laws and institutions of his great lawgiver had immediate reference. And, when in fullness of time, the privileges of the chosen seed, were to be extended to all his children, it was to shepherds, abiding in the field, that the glad tidings of great joy were first announced. Health of body, serenity of mind and competence of estate, wait upon this honorable calling; and in giving these, it gives all that the present life can bestow, while it opens, through its influence, the path to Heaven.

CULTURE OF MUSTARD.

Some months since we noticed the sale of a lot of superior mustard raised by Rev. J. H. PARMELEE, of Duncan's Falls, Ohio. The average of Mr. P.'s crop of 27 acres for 1844 was about 14 bushels per acre, for which he got eight cents per lb. in Philadelphia. The announcement of his success, stimulated many to go into the culture of mustard this season; but from the unfavorableness of the season and the lower price obtained

in market, the profits seem not to have been generally very flattering. In the *Zanesville Gazette* Mr. Parmelee gives an account of his mustard crop for 1845. He planted 28 acres with brown and 2 acres with white mustard seed. Of the former, the yield was 305 bushels, and of the latter 15 bushels—in all 320 bushels from 30 acres. The expense of the crop, delivered in New-York, was \$1089. For 289 bushels Mr. P. received \$1117. A great influx of foreign seed, mostly of superior quality, obliged Mr. P. to submit to a reduction of one cent per pound from the price obtained in 1844. There was no demand for the white mustard seed—a lot of the best quality from the northern part of New-York, could not be sold for five cents per pound, which would be only \$2.50 per bushel. Mr. P. remarks in conclusion, that he thinks a judicious expenditure of labor in the culture of wheat, would yield a better compensation than was afforded by the mustard.

ROSE-BUGS—USEFULNESS OF TOADS.

The July number of the *Cultivator* says that we find no other accounts (than the one alluded to,) "of the rose-bug having attacked the grape vine." H. W. S. C. refers in the Aug. number, to Dr. Underhill's remedy of "going over the vines every morning and brushing the bugs into cups of water. In the hurry of the farm, this would be tedious, and would encroach materially upon other business; for it must be repeated daily and continually during the day, for about three weeks. In my case too, basins would have been filled instead of cups.

Some years ago I had a large collection of roses, the bloom of which I could never enjoy from the myriads of Rose-bugs, in my garden. They devoured the flowers the instant the petals expanded, and most of them while yet in the bud. I have taken more than 50 bugs from one single flower, and every flower on every bush was alike covered with the same pest. I was completely discouraged, and had determined upon giving up the cultivation of roses. I had also imported twenty different kinds of grapes, which grew beautifully, and I was already in imagination, feasting on their branches, but, alas! "L'homme propose, et Dieu dispose"—Holla! a farmer quoting French, exclaims some professional gentleman! And why not? Why shouldn't a farmer quote, or understand French, or Latin, or even Greek? Agriculture and Horticulture both are strictly scientific pursuits, and the more enlightened a farmer's mind, the more cultivated his intellect, the greater prosperity he will attain. However, "revenons à nos moutons," as the French client said to his lawyer. My vines were all destroyed by the voracious rose-bugs.

I had a sun-dial in my garden, and I went one day to ascertain the hour. There was a very fine Blush Belgic rose, close to the dial; and while regarding the latter, I heard a click or noise resembling, though much fainter, the cocking of a small pistol. I listened and heard it again. The sound attracted my attention towards an aldermanic toad, who was, as Virgil has it, "*patula recumbans sub tegmine fagi*"—no, not fagi, but rosæ. I watched, and discovered that the click proceeded from him. He was glutting himself on the rose-bugs, as they dropped near from the bush. I procured a handful, and threw them one by one towards him; not one of which he missed. The insects were seized by his long tongue with such velocity that I could scarcely see it although the tongue was ejected several inches; the noise was occasioned either by the opening or shutting of the mouth, I could not discover which. Unfortunately I am no entomologist, or zoologist. But I called my better half, for all farmers should be married, and we fed our friend, the toad, for some time; the way he gorged himself, certainly astonished me. I now "spare the" toads, but not the "birds." To curtail, however, a long, and perhaps, to others an uninteresting rigmarole, I instantly offered some boys in

the neighborhood a premium on toads, and placed them in my garden, where I have a number still luxuriating in an "otium cum dignitate." To them alone I attribute that my roses now exhibit their beauty, and my grape-vines their fruit.

My observation also goes to prove, with Dr. Underhill, that rose-bugs breed in the ground. This insect came into my garden with some rose bushes from a New-York nursery.

C. E.

Sandwich, C. W., 1845.

EXPERIMENTS IN GROWING INDIAN CORN.

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ED. CULTIVATOR—One and a half miles north of this village, is an extensive black ash swamp, three miles east and west, averaging three-fourths of a mile in width. Three years ago, a road was made across the width of this swamp, by laying logs crosswise compactly together, and covering them with muck taken from ditches, cut three feet deep on each side of this causeway. Judge Clark and other proprietors of this swamp, cut a ditch six feet wide at top and three deep, connecting with the ditches of this road, running east $1\frac{1}{2}$ miles to the termination of the swamp at Black Brook. This season Judge Clark tried the experiment of growing Indian corn on a field of $1\frac{1}{2}$ acres, directly at the junction of the road and the main ditch. The black ash and elm trees had been cut off three years; a few turneps were grown on it the first season; last season a crop of potatoes, which were much injured by the rot. It was now plowed once as well as the stumpy incumbered ground would admit, and planted immediately after it was plowed, 24th May, with Dutton corn in hills three feet each way. Some practical farmers predicted that if the season was wet, "the crop would be drowned"—if dry, "the muck would dry up and the corn wither." I went over the field early one morning after the second hoeing, and the ears had commenced forming, in the height of the great drouth of the past summer. Instead of finding the soil dry and thirsty, the whole loose peaty mass was redolent of moisture. It appeared to me that during the past very warm night, the hydrogen of the decomposed surface had united with the oxygen of the air, thus forming water, by a sort of capillary attraction, not less than by chemical affinity. Had the surface soil been less porous the union of the two gases could not have taken place, at least to the same extent. Had not the peaty surface been in a fine state of decomposition, the like result would not have been produced, the corn would have been slender, the leaves curled, the farmers' prediction fulfilled. Had it been a wet season the ditches would, by taking off the surplus water, have prevented the "drowning" of the corn; but the decomposition of the peaty mass would have been so much retarded, by the absence of solar heat, that the farmers' prediction would have been, in effect, fulfilled; less however from the effect of the incumbent water than from the lack of solar heat. The surface soil of this swamp is nearly four feet deep, resting upon a compact silicious clay, of a light grey color; this corn yielded 140 bushels of sound ears to the acre, with two hoeings.

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EFFECTS OF DROUTH—CARROTS.

It is a common saying among farmers, that in a dry season the soil will suffer the drouth better without manure than with it. This assertion can only be true when the manure is slovenly applied, in a crude and undecomposed state. I have noticed that leguminous plants grown the past unusually dry season, have had a much shorter tap root than those grown in ordinary seasons. I gathered white carrots this fall with the greatest ease by hand, without fork or spade; many of the tap roots were rounded off four or five inches below the surface, but the lateral roots were many and long; the carrots high out of the ground, many of them three inches in diameter, by twelve in length. I attribute the phenomena of the rounded tap root to the extreme drouth of the season; in default of a moist sub-soil, the plant sent its roots laterally to drink the water artificial-

ly supplied by the chemical union of the hydrogen of the humus in the soil with the oxygen of the air. Petzholdt says that the formation of carbonic acid takes place principally at the expense of the oxygen of decaying matter—and that the hydrogen from the same matter forms water by like union with the oxygen of the atmosphere. Liebig says that the quantity of water produced by an acre of fresh plowed sward ground amounts to 950 lbs. per hour, which equals the evaporation per hour from an acre after copious rains. The results in vegetable growth the past unusually warm dry summer, go far to corroborate the truth of the above views. How else are we to account for the unusual large crops produced this season from every well worked field, while the meadow and pasture lands have suffered severely from drouth.

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SALT AS A MANURE.

E. H. Bartlett, on the east shore of Seneca Lake, in the town of Romulus, has this year tried the experiment of watering his flax field with a weak brine, soon after the seed was sown. The result was that the bolls of the flax thus treated, contained from 9 to 13 seeds—the unsalted 5 to 8. The drouth of the season undoubtedly contributed to this result. A compost of salt, ashes and chamberlie, has also proved this season to be an antidote to the turnep worm, so common to old soils.

.....

INDIAN CORN FOR FODDER.

Mr. B. planted an acre of corn for fodder, 18 inches a part one way, 12 the other, three kernels to the hill. He got five tons of well cured edible stalks, and fifty-four bushels of ears from the acre; the land was never manured; it was a clay loam interspersed with granitic boulders and quartz and limestone pebbles.

5 tons stalks worth this year \$7 per ton,..... \$35.00
54 bushels ears of 8 rowed corn, at 25 cts.,.... 13.50

\$48.50

Deduct cost 1 bushel seed, planting, hoeing, }
cutting up, husking, stacking stalks and use } 17.44
of land,

Nett profit,..... \$31.06

Mr. B. also grew 40 bushels good spring wheat of the Labrador variety to the acre this season; it was sown in March as soon as the frost was out of the ground.

S. W.

Waterloo, Seneca Co., N. Y., Dec., 1845.

OPERATION OF GYPSUM.

.....

Liebig supposes the action of gypsum to result from its attraction of ammonia from the atmosphere—the ammonia supplying plants to which the gypsum had been applied, with nitrogen. It is difficult, however, to account for all the results of gypsum on this theory. For instance, its effects have been seen on clover and potatoes, on the same fields where its application to wheat and other grains, (the very plants requiring most nitrogen,) produced no visible results. We have seen it applied on an argillaceous soil at the foot of a granitic hill with great benefits, when the same kind of gypsum applied at the same time to the same kind of crops, on the sides of the hill, produced no effect.

But whatever may be the principle on which plaster operates, its effects in many cases are wonderful. When in Connecticut last summer, we saw, on the farm of John Boyd, Esq., of Winchester, a striking instance of the effects of plaster on potatoes. Four rows of potatoes, to which a spoonful of plaster had been applied, were at least one-third more forward in their size and height of the tops, and were also a much darker green, than others in the same field. The plastered rows were in the middle of the field, and excepting the plaster, had been treated exactly like the others. What the difference might have been in the yield of the plastered and unplastered rows, we have no means of knowing.

Mr. Chauncey Chapin, of Springfield, Mass., also

showed us last summer, a part of his farm which has been mowed annually for fifty years, yielding on an average three tons per acre, (cut twice in a season,) and had received no other dressing during that time than two bushels of plaster per acre each year—one bushel being sown in the spring and the other in August. The soil seemed to be quite a stiff clay—too stiff for cultivation. It is a stratum which crops out in many places on the bank or terrace which divides the alluvion of the Connecticut river from the sandy plain east of Springfield. The effect of plaster on some other parts of Mr. Chapin's farm, is favorable, but nowhere so remarkable as on the soil mentioned. This case, and many others which might be cited, indicates that the effect of plaster is much effected by the nature of the soil on which it is applied. Perhaps there is no better way for the farmer to ascertain whether plaster can be profitably used, than to first try it in different ways, but in such an exact manner that its effect may be easily known. An experiment which would involve no risk or expense, to any extent, might settle points of great consequence.

A MISSISSIPPI PLANTATION.

FROM the last number of our traveling correspondent's "Notes in the Southwest," we give the following account of his visit to Col. J. DUNBAR, who has one of the best plantations in that state, situate in Jefferson county, 16 miles east of Natchez. Mr. Robinson says:

He is a very fine hearty man, 61 years old, and was born near Natchez, and came upon the place where he lives now, when the whole country was covered so thick with cane that it was almost impossible to get through it, and commenced with his own hands to clear away a little spot upon which to build his cabin. He was then possessed of a good strong pair of hands, and a wife willing and able to assist him. He has both yet; and he also has upon the "home plantation," 600 acres in cultivation, and works 50 field-hands, and 40 horses and mules, and ten yoke of oxen. He also has two blacksmiths constantly at work, as well as carpenters, wagon and plowmakers, shoemakers, &c.

The whole number of negroes upon the plantation exceeds 150, having several supernumerary, old and young, from another plantation that he owns.

He has about an hundred head of horses and mules, among which are some very fine blooded animals, particularly three breeding mares. He has also a noble jack, 14 hands high, and heavy built. His cattle are not only uncounted, but unaccountable fine—having among them, both Durhams and Ayrshires of good quality. He has a good flock of sheep, and has kept them for 30 years or more, without perceiving any unhealthiness or deterioration. He has now both South Down and Bakewell rams which he bought for full bloods, but in which I think he was cheated, but not by a Yankee.

He also has, he dont know how many hogs, and I am sure I dont; but he raises corn enough "to do him," and make pork enough to supply the plantation, and every year has some bacon and lard to sell. He also raises large quantities of oats, peas and potatoes, and some as good tobacco from Havanna seed, as ever the lover of a good cigar or long stem pipe, puffed into sweet perfume. He cultivates winter oats, clover, Bermuda, blue-grass and rye for pasture, and all of his stock look as though they knew it. The land is very hilly, and was once covered entirely with cane and a growth of white, black and water oak, poplar, ash, hickory, black walnut, dogwood, sassafras, holly, beach, magnolia.

Col. D. has a steam saw-mill, and he assures me that he saved more than the cost of it, in getting lumber for his own buildings. No wonder, for he has a small world of them. His "negro quarters" look like a neat New-England village; and the interior of the dwellings has as much the air of comfort as the exterior. The negroes' food is all cooked in a very large and neat kitchen, immediately under the eye of overseers or

owner. There is a large, airy, and excellent building for a hospital. It is also used for the "Christmas Ball" which he gives his negroes every year, accompanied with a feast that many a white man would be glad of a chance to partake of. It is generally contrived to have a few pair of weddings on hand at the same time. Births appear to be "in order" at all seasons.

He has a large fine house, and beautiful garden, and good assortment of fruit and flowers, for which the good taste and judicious management of one of the best housewives in Mississippi must have the credit. I was pleased to see Mrs. D. take pride in showing us her neat dairy room, and long row of barrels of the sweetest lard, besides tallow, and two year old soap; all prepared and put up under her own personal superintendence—and this in Mississippi too—by the wife of a planter worth—well I don't know how much money, but this I do know, that him and his good wife are worth a most comfortable and cheerful disposition that makes all happy around them, and if they have not quiet consciences, I don't know who can have them. Unfortunately they have not a child in the world: but I dare say they won't lack heirs.

Col. D. is satisfied that Spanish tobacco upon such rich, warm land as his, could be made a very profitable crop, if they could only once "kick themselves clear of the traces" that bind them to the cotton-sacks, whether making or losing. And Col. D. assured me that at present prices, he did not make 5 per cent on his capital. And yet, in addition to what I have mentioned, he makes about eight bales to the hand. He puts up his cotton in bagging made of his refuse cotton at the factory in Natchez. A few years ago he sent a crop to market put up in thin boards bound round with ropes like common baling. The cotton bagging is much handsomer and tighter than hemp, but a little more liable to be torn by handling; by the constant use of those abominable cotton hooks, which open great rents in the bags, through which another kind of hooks contrive to hook a kind of rent, though they themselves are all anti-renters. But if cotton planters understood their own interest, they never would use any other than bagging made of cotton that will hardly pay for sending to market. To do this, they must have manufactories right in their midst.

I have visited no place in the south where everything wore so much the appearance of a well ordered "No. 1, Yankee farm," as does every thing about this place. There is but one important thing lacking, and that is a complete system of side-hill ditching.

By way of contrast to the manner of stabling horses last described, I annex a description of Col. Dunbar's carriage house and stable, that will suit other latitudes.



Carriage House and Stable—Fig. 12.

The building is 40 ft. square, 10 ft. posts. The upper end of the plan, figure 12, is the front end of the building, having a large window in the gable to put in fodder. The carriage room A, is 20 ft. square, and has two set of ten foot doors. Upon each side, B and C, are two rooms ten feet square with outside doors, for saddles, harness, and all kind of horse trappings. Back of these, E and F, are two rooms of the same size, with outside doors and doors opening into the passage G. One of these is for corn, and the other for chopped oats, &c. In one corner of this room the stairs H, open from the passage to the loft.

The manger and feed boxes I, are along side of the passage very convenient for feeding. The back end is divided into stalls K, having each a door from outside. The passage being always open, and the sides of the stable part being made of slat-work, gives a free circulation of air; and for aught I could see, this stable was full as good as a "lot" enclosed with a rail fence. The Col. also has a very large stable with open-work sides for the field horses and mules.

His whole farm, buildings, orchards, garden, yards, quarters, shops, stock, and tools, besides ten thousand little "fixings," are well worth an examination and patterning after by his brother planters, whom I earnestly wish would visit his place and learn that there is nothing in the climate of Mississippi to prevent the existence of thrift, order, neatness, regularity, and consequent comfort upon a cotton plantation.

I must say that I was delighted with my visit of a day to this fine plantation, and could have spent several other days profitably to myself, with a man of such a character for energy, enterprise, and intelligence, and whose laughing eye constantly tells you that there must be no "blue devil-ism" here; and who has a wife of just such a character as I wish every other Mississippian had; and then, like Col. Dunbar, he would have a *home* worthy the name of that sacred place toward which our hearts constantly yearn as we wander over the surface of this rough world.

But I must on! on! on! "There is no rest for the wicked." The day (March 6,) is most lovely, clear and warm, and upon the ten miles to Washington we will make no call, although there are many fine looking places that would be worth our notice; yet there are several others that bear the fatal mark of "gone to gulleyville," and others that are rapidly going the same gate. It is a most singular soil, and when a gulley once begins, it seems to melt down, down, down, into a deep ditch whose sides are as straight and perpendicular as though cut by a spade and line. I have seen ridges standing between these ditches ten feet high, and quite sharp on the top, and only a foot or two thick at the base. It appears never to dry and crumble down, and of course never falls by freezing, and there they stand, slowly washing down by rain, while upon each side the ditch grows deeper with every shower.

SOLON ROBINSON.

CULTURE OF THE STRAWBERRY.

.....

LUTHER TUCKER, Esq.—On my return recently from one of the courts in my judicial district, I took up "The Cultivator," which had come in my absence, and noticed my name in association with Mr. Hovey's, placed there by "J. F.," of Rochester, to indicate a "discrepancy" in the production of the strawberry. If J. F. is really seeking information, as he intimates, he could have found it to a certain extent by a small calculation as follows: Suppose Mr. Hovey had been gratified in getting two bushels from upwards of 5,000 vines, he would have obtained about one-tenth of a gill, or about a small table-spoonful of berries from each vine; would J. F. be satisfied to cultivate with this prospect? By a similar calculation, I obtained in 1843, about half a pint from each vine, the vines standing one and a half feet apart each way. Is this a wonderful product? In 1844, I sent to the Editor of the "Cambridge Chronicle," a heaping pint of strawberries, and the pint con-

tained 32 berries, and 24 weighed one-quarter of a pound, averaging in size four and a half inches in circumference; and if J. F. has ever seen the statement of the strawberries exhibited at the Horticultural Exhibition in Washington last spring, he will remember that there were six specimens of Hovey's seedling, and none of the berries measured less than 4½ to 5 inches in circumference, so that if they would have averaged an inch square, allowing for cavities in measurement, and as there are 2,145 and six-tenths inches to the bushel, Mr. Hovey's two bushels would not have given him one such berry to the vine. But I will explain the "discrepancy." J. F. will note that I speak of my vines being a year old. They were planted in April, had the whole year to grow, and attained their full size. Now most persons plant out their runners in August or September, as recommended by Mr. Knight and other horticulturists. These vines barely grow enough to stand the winter, and the following spring bear but little if any fruit. It was upon vines of this age that Mr. Hovey must have made his calculation; and I have no doubt that this vine, like other vegetables, must have its age of fructification. I was precisely in this predicament this last spring. I had the same beds set last fall, which gave me the yield in 1843; plants set out last August, I mean of 1844, and this spring I did not get two gallons from them. But if J. F. could only see the perfection of the plants now, he would concede the prospect of a greater yield next spring than one-tenth of a gill, or one big berry to the vine.

BRICE J. GOLDSBOROUGH.

Cambridge, Md., Nov. 19th, 1845.

FARMING IN ALABAMA.

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MR. EDITOR—As the year is now drawing to a close, I feel it a duty I owe to the different agricultural papers I take, to give some account of my farm and system of farming. Could the plan of comparing notes become general,—that is, if each reader of an agricultural paper would in a short and plain way, write out his system, giving the amount of capital employed in farming, the number of acres planted in the different kinds of crops, the manner of cultivating them, the time of planting, the season, &c., &c.,—we should at once become acquainted with the mode of cultivating lands at the north, south, east, and west, and should know the profits of farming in each section of our wide spread country.

I will give you a few extracts from my agricultural book for 1845. In the first place allow me to say a word in regard to the manner in which I keep this book. I commence on the first of January, each year, and charge myself with every dollar I employ on my farm, and estimating all produce at what I believe it would sell for in cash. I make an entry of the kind and amount of work done each day. I also keep a complete account of the seasons, the time of planting, and the manner of working of each crop; keeping an exact account of all money laid out. At the close of the year I give myself credit for all cash received and for all improvements made. In this way I am prepared to know what interest I am making on the capital employed.

On the 2d page of my book for the present year, I find I have charged with capital employed in agriculture, \$8,550.

My land is poor pine land; half of the cleared land very hilly, and the other half perfectly level, as it is divided by a large creek. It is sandy land. There is cleared 267 acres, leaving about 100 acres timbered. Of the cleared land, we planted in corn, ... 120 acres.

| | | | | | |
|---|---|---|------------|----|---|
| " | " | " | cotton, .. | 80 | " |
| " | " | " | oats, .. | 60 | " |
| " | " | " | potatoes, | 3 | " |
| " | " | " | rice, ... | 2 | " |
| " | " | " | garden, . | 2 | " |

267

I find we had arrived at page 48 by the 1st of March;

that the months of January and February were taken up in cutting, rolling and burning logs—in breaking up land—heading for corn and cotton—and in hauling out and scattering manure. I find (at page 30,) that we had made and hauled out 275 loads [how much at a load?] of compost manure. The manure is prepared by hauling to a lot, where my cattle, to the number of forty head, are yarded every night—equal parts of blue marl and pine shaw, making alternate layers of each. We were thirty days engaged in hauling the marl and pine shaws, and in hauling out the manure:

At \$2.00 per day,..... \$60.00.

I find, (by page 44,) that we commenced planting on the 26th of February—the corn planted on the broken land—the rows laid off six feet apart, on the horizontal system—the stalks left standing at two feet distance in the drill, and peas planted in the middle between the rows.

I find, (by page 64,) that we had a frost on the 19th of March,—that cut the corn planted on the 26th Feb., down to the ground. I find, (by page 75) that we commenced planting cotton on 31st of March—the cotton planted on the level land—thirty acres of which was manured with the compost manure, by running a deep shovel furrow in the center of the former cotton row, spreading the manure in the bottom of this furrow, and heading on with a turning plow—the cotton then planted on the top of the ridge. I see (by page 79) we commenced plowing and hoeing our corn crop on the 4th of April. I find (page 82) that I copied into my diary or farm-book, the following arrangement of a farm owned by Mr. J. W. W., of South Carolina. This farm contains 353 acres, to wit:

| | |
|---------------------|------------|
| In corn,..... | 150 acres. |
| " small grain,..... | 100 " |
| " cotton, | 90 " |
| " potatoes,..... | 7 " |
| " rice. | 6 " |

Total,..... 353

Now when it is known that many of our farmers in the south and south-west, plant more than half their land in cotton, having less than half for the entire provision crop, is it to be wondered at that we are all the time buying our provisions and selling cotton, or rather giving it away at half the price it ought to bring.

I find (at page 88) that our corn was bitten down on the 10th of April a second time. I find (by page 92) that we were in great want of rain on the 15th of April. I find that the 19th of April was taken up in running round our cotton the first time—three plows and nine hoes being at work. I find (at page 100) that we were still in great want of rain on the 26th of April.

I have copied this much to show the plan of keeping the book. But to give you some account of the situation of matters at the close of the present year. I find the following entry at page 150 on the first day of October: "For the last four months scarcely any rain has fallen." We gathered our corn crop on the last of September, making 1300 bushels, but with prudence it will answer us, as we sowed about 60 acres of oats on the first of October.

We make thirty-five bales of cotton, and it is a most splendid article.

We put our bales at \$40 each, \$1,400,00

I have expended as follows:—

| | |
|---|--------|
| 44 days hauling manure, | 88,00 |
| 24 days hauling shaws, at \$3 per day,... | 71,00 |
| 30 more days hauling same, at \$2½,..... | 75,00 |
| Other improvements on the farm,..... | 100,00 |

\$334,00

ALEXANDER McDONALD.

Eufaula, Ala., Dec., 1845.

"There is no better dessert fruit than a good apple, and in this fruit England beats all the world, with the exception of America. The Newtown pippin is unquestionably the first of apples."

PRINCIPLES OF FLOWING.

.....

MR. EDMONDSON, editor of the "British American Cultivator," in his report on the State Fair at Utica, says in reference to the Plowing Match: "Some of the work was tolerably well executed, but on the whole it would not have met the approbation of a British plowman. The furrow-slices were six inches deep, and from twelve to fifteen wide; and in the main turned perfectly flat. The plows were short in the handles; and in their general construction did not appear well calculated to turn a well proportioned furrow. The plowmen have rather an imperfect idea of the best mode of forming ridges, and in taking up the two last furrows; they were so deficient in the latter particular, that among the twenty competitors, there was not a single individual who attempted to finish his work." He further remarks, that he "offered to plow a native-born Canadian youth of only 16 years of age, against any native-born American that could be produced. "We made this challenge," he continues, "not from any desire of competing for a wager, but merely to convince our American friends that their whole system of plowing, at least so far as scientific principles are concerned, is radically deficient."

We have no doubt that the competitors at the Utica plowing match, as well as the American farmers generally, would be glad to adopt any improvements which could be suggested on their present modes of plowing; we have therefore copied Mr. Edmondson's remarks for the purpose of showing his views, and would respectfully call on him to inform us what kind of plowing would "meet the approbation of a British plowman:" what he considers a "well proportioned furrow," what are the "scientific principles," by the application of which, our "whole system of plowing" is proved to be "radically defective."

OXEN FOR FLOWING

.....

THE advantage of oxen in farm-labor, depends much on their discipline. If they are of the right form and spirit, they may be trained to walk as fast as horses, and will do as much at the plow, excepting perhaps in the very hottest weather. There are some oxen that will even stand the heat in the field as well as horses. The first premium for plowing at the state plowing match at Poughkeepsie, in 1844, was given to a man who used a middling sized pair of oxen. They did their work quicker and better than any other team, and there were several pair of large horses. It was a very warm day, but the oxen were less worried, and were evidently able to perform more in a day, than the horses.

In the report of the committee on plowing with sin-tams at the Essex county, (Mass.) exhibition, we find the following remarks, by the chairman, J. W. Proctor. It is proper to observe that there were matches with two yoke of oxen as well as with one yoke, and also a match with horses. The quantity of ground was the same, one-fourth of an acre, in the three matches, but there was but little difference in the time occupied in doing the work—though one of the single teams of oxen plowed their land some minutes sooner than any of the horse teams. Mr. Proctor's remarks are deserving particular attention as showing the capability of oxen in plowing, and also for a suggestion contained therein in reference to the subsoil plow:

"From these experiments we learn that an acre of land may be plowed by a single pair of cattle and one man in four hours, and probably nearly two acres in a single day. When we take into view the expense of operating a team of this description, compared with those usually employed in this business, it will be quite well for our farmers to consider whether most of their work cannot be done with one pair of cattle, and, if two pair are to be used would it not be better to cut the first furrow of less depth, and apply the power of the second pair to a subsoil plow to follow directly

after. If we do not entirely mistake the signs of the times, our modes of preparing land for culture will ere long be essentially modified by the use of the *sub-soil plow*. In the county of Worcester, where the management of land and teams is understood as well as in any part of the commonwealth, the premiums are limited to one pair of cattle without a driver."

WINTER EMPLOYMENTS.

.....

"Now shepherds, to your helpless charge be kind—
Baffle the raging year, and fill their pens
With food at will; lodge them below the storm,
And watch them strict."

NEXT to man's duty of providing for himself and his own household, is that of relieving, to the extent of his power, the wants of his fellow-men in general,—and next to that, is the duty, (to say nothing of interest,) of protecting and nourishing the animals placed under his care, and from which his own comforts are so largely derived. Winter is indeed a season of gloom and unhappiness to those who are in need of food, raiment or shelter; and in truth, however well provided the farmer and his family may be in these respects, if he has the common sympathies of humanity, he will find himself a stranger to peace of mind, while any of the animals dependent on him, are miserable from hunger or exposure; but let every individual of his flocks and herds, receive the full care and attention requisite to their comfort and enjoyment, and a consciousness of this will enable the owner to rest quietly on his pillow, though the storm may howl and rage around.

Besides the cutting and collecting wood and timber, and other business usually done in the winter, the farmer may do much in this season, towards forwarding the labors of spring. Every farmer should have a workshop, where, in stormy and inclement days, he or his men may be employed in mechanical work. If extensive operations are carried on, there should be a blacksmith's forge with an anvil and such apparatus as is necessary for doing small jobs. Implements should be made and repaired, and everything put in readiness for use. A little practice will enable any man of tolerable ingenuity to use the carpenter's or blacksmith's tools so well that he may save many a dollar.

Although the farmer is sometimes prevented from carrying on out door operations by the severity of the weather, his time during this season may be as profitably employed as in any other part of the year. The leisure now enjoyed, permits his mind to be directed to subjects of interest and importance which he had not the opportunity to examine thoroughly, when more busily engaged. He has time for studying and laying plans for future operation—time for reading and for investigating the principles on which his art is based,—a knowledge of which enables him to direct his labors understandingly. By reading he acquires information as to the state and condition of agriculture everywhere. In relation to the different branches of husbandry, he notes well the practices of others, and carefully compares them with his own—resolving to improve his system by adopting whatever is applicable to his circumstances. While prosecuting his inquiries, however, he should avoid a credulous assent to untried schemes and theories. Though he should examine freely, he should apply cautiously—he should endeavor to "*prove all things, and hold fast that which is good*"—counsel, which, though originally given in reference to spiritual concerns, should be held as a motto in all temporal affairs.

The farmer should also provide means for the intellectual improvement of his family. The character of his sons and daughters, depends much on the opportunities they have at home for the acquirement of knowledge. Many young men are made discontented with the life of a farmer, and are, perhaps, driven to habits of irregularity, from the want of opportunities for cultivating their minds—from the want of that knowledge which would give them both "power" and pleasure. Every effort should therefore be made to render home pleasant.

Books and periodicals, suited to the ages and capacities of both sexes, should be provided. They should be such as will not only convey instruction in relation to the business affairs of life, but of a character also that will tend to improve the morals and elevate the higher sentiments.

Nor should the mind of the farmer himself be restricted to one subject or class of subjects, for in the whole range of nature there is nothing that bears not some relation to his happiness. Let him, then, study nature in all her shapes and forms—let him heed well her teachings,

"And mark them down for wisdom."

Every season will afford opportunity, to the man of philosophic mind, for observation or for useful reflection and contemplative enjoyment:

"E'en winter wild, to him is full of bliss,
The mighty tempest, and the hoary waste—
Abrupt, and deep, stretched o'er the buried earth,
Awake to solemn thought."

ANSWERS TO INQUIRIES.

.....

DISEASE IN FOWLS.—J. L. R. (Wilmington, Del.) The disease you speak of is called by various names in books, such as roup, catarrh, &c., but is more known in this country as "swelled head." It is a bad disease, and is believed to be contagious, though it is often produced spontaneously, or from causes unknown. As soon as a fowl is discovered to have the disease, it should be taken away from the healthy ones, and kept in a moderately warm and dry place. We have heard of various remedies, but believe the best is to wash the head often with Castile soap-suds, with occasionally a wash of sugar of lead. If they are very bad, it is as well to cut their heads off, for it is difficult to save them; and if they live, they generally lose one or both eyes.

TRAINING HORSES FOR SADDLE AND HARNESS.—"A SUBSCRIBER" at the island of Bermuda wishes for some directions on this subject. Will not some one furnish us an article giving the best mode of breaking horses for these purposes?

HYBRID STRAWBERRIES.—"A SUBSCRIBER," (Smithtown, L. I.) We cannot suppose different kinds of strawberries would mix in the runners. Hybrid plants are produced by the pollen from blossoms of different kinds impregnating the same pistils; the seed produced from such an impregnation, partaking of the intermixture. We cannot imagine any other way in which hybrids could be produced, and as the runners you speak of do not come from seed, we cannot see how any new variety should occur.

WORN OUT LANDS FOR ORCHARDS.—C. SMITH, (Newport, N. Y.) We do not see why the "worn out lands of Long-Island and New-Jersey," if naturally warm, may not be made to produce fruit-trees well. As to the "barren land near Albany," we remark that much which a few years ago was considered such, is now made to produce fruit trees and fruits quite well, and excepting the liability of some portion of it to frosts, we believe it would generally do well for that purpose. As to the "four best varieties of winter apples," we suppose hardly any two persons would agree in opinion; but all things considered, can you do better than to take the Blue Pearmain, Herefordshire (or Winter) Pearmain, the Swaar, and either the Esopus Spitzenburg, or Rhode-Island Greening?

AGRICULTURAL READING.—W. B. H. (Philadelphia.) We would recommend, as a course of agricultural reading for a young man, the best of our agricultural periodicals, Johnston's works, (beginning with his catechism,) and the whole of the works relating to agriculture, published under the direction of the British Society for the Diffusion of Useful Knowledge; but with all reading, we would earnestly advise the constant practice of observation and comparison, by which only, can knowledge be practically and profitably applied.



ALBANY, JANUARY, 1846.

OUR NEW VOLUME.

WITH the beginning of the year, we renew our labors to

"Improve the soil and the mind."

It affords us pleasure to state, that the present volume of the Cultivator commences under auspices not less favorable than those of any preceding one; and we are encouraged by a well grounded hope of giving superior value to our pages, and more widely extending our sphere of usefulness.

With this number,—both for the variety and sterling worth of its contents, and the excellence of its illustrations and improved typographical execution,—we think our readers will be well pleased.

It will be seen that we give in this number, communications from correspondents in England, Ireland, Switzerland, Canada, New-Hampshire, Connecticut, Ohio, Indiana, Illinois, Alabama, and from no less than ten counties in our own state, many of which will be found of unusual interest.

Our readers, without going from their own fireside, can take a look at Mr. DONALDSON'S famous prize cow, and hear numbers of their brethren detail the products of their superior dairy cows....with our Irish correspondent, they can drop in to breakfast with a large company of the sterling farmers of the Emerald Isle, take an airing in one of the finest Parks in the world, and pass through the farm-buildings and yards of a most extensive and admirably arranged farmery....with Mr. MITCHELL admire the grandeur and beauty of the scenery of Switzerland, see where

"In peaceful vales the happy Grisons dwell;" or, climbing with the mountain-shepherds, to some Alpine height,

"Look downward where a hundred realms appear" with DAVID THOMAS, learn to imitate nature in her prodigal display of floral beauty....with others, learn how to make their gates, salt their meat, and keep their accounts....they may spend an hour with Mr. GEDDES, who will instruct them in all the minutia of laying cement pipes, so that their herds shall not have to roam abroad for water at this inclement season....with Mr. HOWARD, they may visit the five hundred and thousand acre corn-fields of Ohio....with Mr. HARDY, examine the flocks on the western prairies....Mr. HYATT will exhibit to them the drawings of a beautiful cottage with the details of its arrangements and the cost of its erection....from Mr. QUINCY they may receive lessons of wisdom in language which, for beauty and eloquence, has rarely been equalled....as specimens of agriculture in our Southern States, they cannot fail to be greatly interested with the description of the plantation of Colonel DUNBAR of Mississippi....and from Mr. M'DONALD they will learn the course of farming or planting in Alabama. When these articles, and other valuable ones contained in this number, shall have been read, and it is considered that this is but a specimen of the twelve which form a volume, we presume it will be readily conceded that THE CULTIVATOR is worthy the support of American farmers.

READER, if you are pleased with this paper, and wish to have it circulated in your neighborhood, will you show it to your friends, and make an effort to raise 10 or 15 subscribers? By clubbing together, you will remember that 15 copies can be had for \$10, making the price of a single copy but 67 cents.

TO CORRESPONDENTS.

COMMUNICATIONS have been received, since our last, from Farmer C., Frederick A. Wier, Brice J. Goldsborough, A Farmer of Tompkins Co., Alex. M'Donald, J. W. Peckham, Alex. Leeds, A Subscriber at Bermuda, C. T. Albot, J. S. C., J. Moore, J. P. Norton, C. N. Bement, P. Barry, A Subscriber, D. G. Mitchell, H. S. S., G., J. R. Howard, W. R. Prince, T. C. Peters, C. E., Wayne, S. W., Robin, Mountaineer, J. P. Norton, W. Bacon, S. B. Buckley, A Subscriber, Geo. Blessing, J. B., H. R.

The inquiries of "Highlander," were forgotten till too late for answer this month.

Several communications in type for this number, are delayed on account of our pages being full,—among these, we find one from WM. BACON, Esq., which we had especially intended for this month.

An engraving of the gag and strap, sent us by D. S. of Burlington, N. J., was published in the 9th vol. of our paper, p. 38.

S. P. T., Winnsborough, S. C.—There are no Dorplings to be had in this vicinity.

C. C. C., Schenectady.—We know of no Bolton Grey or Creole fowls, in this neighborhood.

AN OLD SUBSCRIBER, New-York.—The Alpaca is not to be obtained in this country; nor do we know where you can obtain "a young full-blooded Maltese Jack." Any one having such an animal to dispose of, might find a purchaser by advertising him in this paper.

S. S. G.—We are open to conviction, and shall readily adopt any suggestion, which we may deem an improvement.

WHITE-THORN FOR HEDGES.—H. L. (Apalachin, N. Y.) We are unable to say whether "our white-thorn is suitable for hedges" or not. Will some one tell us?

MONTHLY NOTICES.

LIBEL SUITS.—The Editor of the American Agriculturist having declined to furnish the name of the writer of the libellous article published in that paper for November, the Editor of the Cultivator has commenced suits for libel against the editor and publishers of the Agriculturist.

VALUABLE BULL FOR SALE.—It will be seen by an advertisement in this paper, that Mr. DONALDSON offers for sale, the splendid improved short horned bull "Prince Albert," whose portrait, engraved on steel, we issued with our August number of last year. That portrait, beautiful as it was, failed to do this magnificent animal justice, as will be seen by reference to our remarks in the number accompanying it. He was imported by Mr. R. when a year old, at an expense of \$600. He is now five years old, and is a bull of great substance, remarkable for symmetry and fineness of bone, and few if any of the bulls imported or bred at home, can be considered as surpassing or even equalling "Prince Albert."

LANCASTER COUNTY FARMER.—This is a large folio paper published at Lancaster, Pa., by J. B. Garber, and edited by Ele Bowen. We have received the first four numbers, in all of which we notice more or less matter copied from the Cultivator without credit; in the last number we find no less than eleven of our articles, making nearly six large columns, without one word or sign in reference to their origin. Is this right?

P. S. No. 5 of the above paper is just received—it contains fifteen articles filched without credit from the Cultivator—though three of them were also published the week previous. If the value of those articles to Lancaster county farmers, is such as to justify their weekly repetition, do they not deserve at least the trifling tribute of credit?

SEEDLING APPLES.—We received, sometime since, from RICHARD SHAW, of Berlin, Rensselaer county, two

specimens of sweet, and one of sour apples, which originated on his farm. The sour apple and one of the sweet kinds, he informs us possess the remarkable property of continuing in a state fit for eating from November to June. We think them (particularly the sour kind,) deserving of introduction to our nurseries and orchards.

DOUBLE WILD ROSE.—We have received from RICHARD JOHNSON, East-Groveland, Livingston Co., some plants of a "double wild rose," as he calls it. He transferred this rose from the location where he first discovered it, to his garden, where it became *monthly*, "flowering from June till frost came." During the extreme dry weather of the past summer, the flowers were single. We have placed some of the plants sent, in the hands of Mr. Wilson, who will take good care of them, and note their curious developments.

FINE APPLE.—Mr. Johnson also sent us a sample of an apple which he thinks is a seedling, and which he proposes to call the "*Groveland Russet*." It is certainly a very fine apple both in appearance and taste. But we think Mr. J. is mistaken as to its being a seedling. It corresponds exactly with the description of the Herefordshire or Winter Pearmain, and some good pomologists have no hesitation in pronouncing them identical. It is a celebrated variety and deserves extensive cultivation—in eating from November to February.

SAMPLE OF CORN.—We have received from T. F. YOUNG, Esq., of Oyster-Bay, L. I., a sample of a large kind of white corn grown by him. It seems to be a variety intermediate between the white flint of the north and the white gourd seed or "horse-tooth" corn of the south, and is apparently well adapted to the climate of Long Island; the ears are large and long, some of them over thirteen inches in length, with a not very large cob, and the kernels are very large.

VINE CULTURIST WANTED.—Mr. J. B. GARLAND, of Fredericksburg, Virginia, being about to embark in the cultivation of the vine, is desirous of procuring the services of an individual practically acquainted with the management of vines and the manufacture of wines. A man of good habits, and who can be relied upon is wanted. Address as above.

CORRECTION.—In our notices of "*Live Stock in Connecticut*," (page 349, last vol.) we spoke of a bull belonging to ORREN THOMPSON, Esq., which we stated was called *Sir Dick*. We were mistaken in the name—it is *Cerdick*. He is registered in the fourth volume of the Herd-book, as follows:

"**CERDICK**, (5843,) red and white, calved March 21, 1839; bred by Mr. Clark, Hellaby, late the property of Mr. J. Knowles, Attercliffe, near Sheffield, and is now in America; got by Cerdic (1802) d. Rosamond, by Topper, (2768) g. d. Miss Hutton, by Protector, (1346) gr. g. d., by a bull of Mr. Colling's."

On page 320, last vol., we mentioned East-Windsor, Ct., as having been the residence of Col. Jeremiah Wadsworth. It should have been Hartford instead of East-Windsor.

DUTTON POTATOES.—Mr. Street Dutton has left us a sample of potatoes with this name. He obtained them several years ago from a man by the name of Dutton near Philadelphia. They are white, smooth-skinned, medium sized potatoes, of excellent quality for the table. Those left us, are a part of a lot for which Mr. D. has put in a claim for a premium from the State Ag. Society.

GOOD WHEAT CROP.—Edward T. Bellah, Esq., of Brandywine Hundred, Delaware, harvested the past season, 358½ bushels wheat from nine acres, being 39½ bushels to the acre. "He manured the field in the spring, planted corn, cut off the corn, sowed it in wheat and fluked it in both ways among the corn roots, and gave it no other dressing except to sow 39 bushels bone dust over one acre, which he did not think better than the rest."

¶ We have received a paper from Col. ALEXANDER McDONALD, president of the Barbour county (Ala.) Ag. Society, giving an account of the exhibition of that association, which took place at Eufaula on the 5th

of Nov. last. The exhibition seems to have been generally very satisfactory, and great interest appears to be exerted for the improvement of all branches of husbandry. It is mentioned that Col. McDonald sent some potatoes to the show which sold for ten cents a piece. Col. McD. forwarded us a sample of his cotton, which so far as we can judge appears to be of very superior quality.

NEW-YORK STATE AGRICULTURAL SOCIETY

ANNUAL MEETING.

The annual meeting of the N. Y. S. Ag. Society will commence its sessions in the city of Albany on the 3d Wednesday (21st) of January, 1846, and continue two days.

The meetings for business will be held at the State Geological rooms, commencing at 10 o'clock, A. M. on Wednesday.

A public meeting will be held at the Assembly Chamber of the Capitol on Wednesday evening, where there will be a public discussion of subjects interesting to agriculturists. And on Thursday evening the annual address will be delivered by the President of the Society.

Farmers and the public generally are invited to be present.

.....

NEW-YORK STATE AGRICULTURAL SOCIETY.

THE Executive Committee of the N. Y. S. Ag. Society, met at the Society's room in this city on the 11th December. Present, Messrs. Walsh, Vail, Prentice, McIntyre, Hillhouse, and Tucker—ALEX. WALSH, Esq., in the chair.

A letter was read from the President, expressing his regret at his inability to attend the meeting, and recommending the appointment of Committees on Essays, Field Crops, &c.

The Rec. Secretary reported that he had as yet received but one Essay for premium—seven applications for the prizes on Farms—four, for those on Winter Wheat—two on Barley—two on Peas—one on Indian Corn—one on Flax—two on Mangold Wurtzel—two on Sugar Beets—on Carrots and table Potatoes, one each.

The following Committees to award the prizes, were then appointed:

ON ESSAYS—Prof. E. Emmons, Prof. A. Dean, and Judge Van Bergen.

ON FARMS—Hon. J. P. Beekman, Hon. Samuel Young, and Judge Cheever.

ON WHEAT, BARLEY, RYE, AND OATS—Gen. Thomas Farrington, J. B. Duane, Esq., and Gen. J. J. Viele.

ON INDIAN CORN, CORN FODDER AND BROOM CORN—Geo. Geddes, Hon. Gideon Hard, and Hon. J. B. Smith.

ON ROOT CROPS—C. N. Bement, O. F. Marshall and Elnathan Haxton.

ON PEAS, CLOVER SEED, AND GRASS SEED—J. M. Sherwood, Wm. J. Cornwell and H. E. Meach.

A communication from T. H. HYATT, Esq., of Rochester, suggesting the propriety of offering a premium for plans of residences, was read, and referred to the committee hereafter to be appointed on the Prize List.

Two communications from Dr. A. DOUBLEDAY, of Binghamton, on the subject of the Smithsonian legacy, were read, and referred to a committee consisting of the President, J. S. Wadsworth and Joel B. Nott, Esqrs.

The following communication was then read:

B. P. JOHNSON, Esq.

President of the N. Y. S. Ag. Society:

Dear Sir—I beg leave to invite your attention, and that of the Executive Committee, to an article published in a paper called the American Agriculturist, printed in the city of New-York, for Nov. 1845, p. 352, in which I am charged with abusing the trust committed to me as Secretary of the Society, in the most corrupt manner.

If these charges are true, the Society owes it to itself, to vindicate its character by removing me from the office I hold, and expelling me from its membership.

If the charges are false, and my whole course has been

the reverse of that imputed to me, it seems but just that the Society should vindicate my character from the charge of abusing its trusts.

I therefore respectfully ask that a committee may be appointed at your meeting on the 11th inst. to investigate my official conduct as Secretary, and particularly in relation to the charges thus publicly brought against me. I ask that the Committee may be appointed at this time, in order that they may have an opportunity to make their investigations, and be prepared to report at the annual meeting of the Society in January.

Respectfully yours,
LUTHER TUCKER,
Rec. Sec'y N. Y. S. Ag. Society.

In compliance with the request contained in the above, the following gentlemen were appointed a

COMMITTEE TO INVESTIGATE THE CHARGES AGAINST THE REC. SECRETARY—Hon. Robert Denniston, Hon. John Savage and Maj. E. Kirby.

NOTICES OF PUBLICATIONS.

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ESSAY ON GUANO, by I. E. TESCHEMACHER. Boston, A. D. Phelps, publisher.

In this pamphlet Mr. T. has given the results of analyses of the various kinds of guano, with accounts of its application to Indian corn, grass land, grape-vines, trees, peas, beans, melons, potatoes, turneps, strawberries, celery, cabbages, flowers, &c., &c., on all which plants it operated beneficially. Mr. T. is of the opinion that the introduction of guano into this country would be an advantage. He has been led to this opinion from the investigations he has made in regard to its composition, as well as from actual trials with it.

.....
HISTORY OF WYOMING, in a SERIES OF LETTERS, from CHARLES MINER, to his son, WILLIAM PENN MINER. Published by J. CRISSY, Philadelphia.

This is a work of 488 pages, with an appendix of 104 pages. Perhaps a more attractive subject than the History of Wyoming, could not have been chosen. The tragic fate of that settlement is well known, and a charm has been thrown around the event by story and song, which gives to every thing connected therewith, a peculiar interest. The author has been indefatigable in collecting matters relating to his work, and has embodied many interesting and valuable facts not heretofore made public. We think the book will prove exceedingly popular and find an extensive sale.

.....
REPORT OF THE EXPLORING EXPEDITION to the ROCKY MOUNTAINS in the year 1842, and to OREGON and NORTH CALIFORNIA in the years 1843—'44, by Capt. J. C. FREMONT.

We are indebted to D. GOLD, Esq., Washington, for a copy of this document. We have not as yet had time to give it a full examination, though we have seen enough to know that its contents are interesting and valuable.

.....
NEW-ORLEANS COMMERCIAL TIMES.—This is an interesting and ably managed paper lately established in the Crescent city. It has an agricultural department, of which, we are pleased to see, our friend THOS. AFFLECK, Esq., of Washington, Miss., has the editorial charge. Mr. A. is a sensible and ready writer on all branches of agriculture and horticulture, and is not unacquainted with the position he has assumed, having for some time edited in an able manner the Western Farmer and Gardener. We trust his connection with the Times will be pleasant to himself, as we have no doubt it will be beneficial to the public.

.....
PRAIRIE FARMER.—This monthly agricultural periodical, published at Chicago, Illinois, by JOHN S. WRIGHT, and edited by him in connexion with J. AMBROSE WIGHT, is one of the most valuable among our agricultural exchanges, and deserves, as we are happy to learn it receives, the liberal patronage of the farmers of the thriving section for which it is designed.

CONDENSED CORRESPONDENCE.

CULTURE OF POTATOES

We give the following from a letter from WILLIAM M'Coy, Esq., of Franklin, Pendleton county, Va. We agree with him, in what he says as to the value of the potatoe as food for stock. Most farmers would think that he had little reason to complain of the product of his potato crop this season; and we shall be greatly obliged if Mr. M'Coy will give us a particular account of the process of culture by which he has raised the unusually large crops he speaks of. "For the last three years preceding this," says Mr. M'Coy, "I have had great success in the cultivation of potatoes, which I have raised to some extent, for the purpose of wintering cows and calves; this year I only got at the average rate of 350 bushels to the acre. Formerly I never raised less than 800 bushel to the acre. It seems to me that this is by far the most profitable crop that we can raise, for the purpose of feeding stock, either cattle, hogs or sheep. We wash the potatoes, and then mash them with a maul, and with the addition of a little corn meal, they are decidedly the best food that I have ever found for milk cows and calves. In fact I believe that with potatoes and corn meal, I can fatten beef cattle as rapidly, and more economically than on any thing else, the authority of Boussingault to the contrary notwithstanding. Unfortunately the rot has this year made its appearance among our potatoes. At least 10 per cent of mine were rotten when taken from the ground, and my neighbors complain of the same loss."

Mr. M'Coy informs us that the past season has been one of great discouragement to the farmers in his vicinity. There was an almost total failure of the grass crop on account of the drouth—corn and oats, not more than half a crop, and every thing else in proportion, except wheat, which was a tolerably fair crop as to quantity and first rate inequality.

AGRICULTURAL SOCIETIES AND PAPERS.

We make the following extract from a private letter of a secretary of one of our County Ag. Societies:—"The society this year as heretofore, threw upon me the burden of making out a list of premiums to be awarded at our annual fair, and I tacked on, whenever I could, a copy of the Cultivator or Genesee Farmer, so that a copy of the Cultivator or Genesee Farmer accompanies every premium. This I did, believing that our Ag. Society cannot be sustained unless there is a more general diffusion of knowledge gathered from agricultural papers. I believe a political party might just as well undertake to keep its existence without political papers as an Ag. Society without the circulation of agricultural papers. I intend during the coming winter to visit every town in the county, (if my professional employment will permit,) and represent to the farmers the necessity of sustaining the county society which has run pretty low, and in so doing, I shall take the liberty to urge upon them the great benefits to be derived in taking the Cultivator."

SUCCESSFUL DRAINING.

Mr. MILO INGALS BEE, of So. Hartford, N. Y., after detailing many improvements in the system of husbandry, which have been introduced in consequence of reading the Cultivator, in his vicinity, says—"I believe every one of your regular subscribers here, have done something at underdraining, with complete success. I will mention one piece of successful draining. A lot of five acres, had been mowed from time immemorial, producing yearly from 1½ to 2 tons of inferior hay, and hard work at that, as the ground had never been plowed; 35 rods of underdrain were made in the spring of 1842, at a cost of from eight to ten dollars. The field manured with twenty five loads per acre, and planted with potatoes; the crop proved about middling. In 1843, it was planted with the common twelve rowed corn, and produced the greatest growth I ever saw, some of it growing to the height of ten feet. In 1844, it

was sowed with oats, and the only objection to this crop was, that it was too large. In 1845 it was mowed, having been seeded down the year previous. How much hay was cut I do not know, but it was of the very best quality, and was apparently as large as could grow in any place; a second crop might have been cut, but as pasture was rather short, a lot of calves were turned in, and they are to this day, standing examples of the benefits they received. I have not aimed at definiteness in this account, but you will readily perceive the vast difference between this worthless piece of land as it was, and as it now is."

DRILLING INDIAN CORN.

Extract of a letter from Mr. ALEX. D. COULTER, Herriottsville, Penn., to the Cultivator:—"Last season I tried an experiment in planting corn, by drilling it in rows three feet apart, two grains fifteen inches apart in the row. On three acres I raised 369 bushels of ears. After the corn was about a foot in height, some of the old fashioned farmers prophesied a failure. They said it would end as many other visionary projects of 'book farming,' and were very much astonished at the result."

CURE FOR WOUNDS IN HORSES.

While writing I will give you the following recipe for a preparation to cure wounds in horses. I have never seen it published, and if it is new to you, perhaps it may be of service:

Take one gill of turpentine, two gills of whiskey, and one egg. Beat the egg well, and mix the three together. It should be applied with a feather or swab twice a day. It keeps a wound healthy, and prevents its healing too rapidly. For its efficacy I can vouch.

J. S. C. Trenton, N. J.

THE NEXT STATE FAIR.

The following resolutions, passed at the late meeting of the Cayuga Co. Ag. Society, have been forwarded to us for publication, by E. W. BATEMAN, Esq., President of that society:

Resolved, That the New-York State Agricultural Society be requested to hold its next annual fair at Auburn; and that the members of this society tender their services in making suitable preparations for the same.

Resolved, That the President be requested to transmit to said society the foregoing resolution, with the assurance that the farmers and citizens of Cayuga county will promptly devote their energies to the procurement for said society of the comforts and conveniences requisite on that occasion.

CIRCULATION OF AGRICULTURAL PAPERS.

A gentleman at Baldwinsville, who encloses us \$10 for 15 copies of our paper, says:—"The task of asking a neighbor to subscribe for the Cultivator, when \$10 will pay for 15 copies, is an easy one. Patriotism should cause us to do so, while so much of our national wealth and prosperity depends upon agriculture—the spirit of philanthropy should cause us to do so, as long as its genial effects are as visible as they are at present, and he who does much to enlarge the circulation of this useful document, must partake of the feelings of a benefactor, for it scatters its benefits wherever it goes."

SUPPOSED SEEDLING PEAR.

We have received from JOHN MORSE, of Cayuga, a figure and description of a pear called *Keeler's Virgalieu*. The tree which produced it, supposed to be a seedling from the White Doyenne, (Virgalieu or St. Michael,) is said to be growing in the garden of Dr. Keeler, at Seneca Falls. It is said to be of thrifty growth, with "branches upright, young shoots yellowish gray or light brown." We deem it unnecessary to give the description of the fruit, as it seems to be copied almost verbatim from Mr. Downing's description of the White Doyenne, and indeed from Mr. Morse's account we cannot see

how it differs from that variety. Until it is ascertained for a certainty that it is a seedling, we cannot think it necessary to publish the figure.

CROPS, POTATO ROT, &c.

Mr. J. C. McLANAHAN, Bedford county, Pa., informs us that the summer crops in that county, were very light the last season. The wheat crop, however, was remarkably heavy, and the weight of the berry extra-heavy, weighing from 65 to 69 lbs. per bushel. His potatoes had no appearance of rot, when harvested, but have since, as in this vicinity, commenced rotting.

FEEDING POULTRY, &c.

What do poultry of all kinds, when fattening, particularly require?

Ans. Three things are necessary to perfect success; first, *meat*, (fat pork or cracklings:) second, charcoal, broken very small; third, gravel and water.

What are the best articles of food?

Ans. Cornmeal wet with milk and mixed with charcoal; wheat screenings and fat pork, or fresh meat or cracklings.

What is the best cure for the pip in chickens?

Ans. A piece of fat pork as large as can be thrust down the throat, is a simple and certain cure.

The above is not theory but experience, which any man may easily make his own. W. B. H.

CORTLAND CO. AG. SOCIETY.

Extract of a letter from J. S. LEACH, Esq., to the editor of the Cultivator, dated Dec. 4:—"Our County Ag. Society met on the 4th inst. The meeting was large and spirited, and its proceedings characterised by great harmony. A resolution, moved by H. S. Randall, Esq., was adopted, recommending the introduction of standard Agricultural periodicals, and other agricultural works, into our Common School Libraries. The following officers were unanimously elected for the ensuing year:—Henry S. Randall, Esq., of Cortlandville, President—Thomas Harrop of Scott, Charles McKnight of Truxton, Squire Jones of Homer, and Hiram Hopkins of Cortlandville, Vice-Presidents—Amos Rice, Treasurer—James S. Leach, of Cortlandville, Sec.—Paris Barber of Homer, Cor. Sec.—William F. Bartlett, Marshall—Henry Stephens, David Matthews, Hammel Thompson, Andrew Dickson, O. M. Shedd, Henry Brewer, Oren Brown, Martin Sanders, and Morris Miller, Executive Committee."

EFFECTS OF NEW-JERSEY MARL.

Extract from a private letter from a subscriber, (W. B. H.) in Philadelphia:—"In the part of New-Jersey where my son now is, nature has been extremely liberal in furnishing inexhaustible deposits of marl; and the effect produced upon sandy lands, is almost beyond belief. The finest corn which I saw in Monmouth county, during the severe drouth of the past summer, was upon fields in the vicinity of New Egypt, which ten years since, presented almost one unbroken surface of soil, so sandy that corn would hardly grow four feet high, and would ear within six inches of the ground. Marl has been found in great abundance in all their creek banks, and freely used. The soil, which is in many places based on clay, has no doubt been stirred rather deeper than before, mixing the subsoil with the light soil above, thus greatly benefiting it, and adding much to its depth, and giving increased consistence and fertility."

ROOT CULTURE.

Extract from a letter from S. B. BURCHARD, Esq., of Hamilton, Madison county, N. Y., to the Editor of the Cultivator:—"I am a thorough convert to the root crop, especially the carrot. From the little experience I have had, I am fully convinced that I can winter forty cows on four acres of carrots, with one-fourth of the hay, with the use of straw, which I used to throw into the barn-yard, in better condition than formerly, with

the full amount of hay and three bushels of grain to each cow. I think that green-sward is preferable to fallow land. 1st. The expense of tilling and keeping weeds from injuring the plants, is much less, as, by plowing the sward deep, the weeds do not start. 2d. The sod will soon rot, and afford the proper nutriment for the plants. My present calculation is to plant four cress to beets and carrots the next season."

KILLING RATS.

Mr. ALEX. LEEDS, of St. Joseph, Michigan, says:—"I can give your correspondent G. E. J., Binghamton, one remedy for killing rats, that I know from experience to be effective. Mix some unslacked lime with corn-meal, and place where the rats may accidentally find it. They will soon become very thirsty, and upon drinking water the lime slacks and swells the rat like "all natur." In the Bahama Isles sponge is fried and placed in their way; they eat, drink, swell, burst and die. If they die in their nests, or any concealed place, vast quantities of Cologne will be required. Lime and meal should be, of the first, one part, and meal two parts, well mixed together."

THE MARKETS.

FOREIGN AND DOMESTIC.

By the Acadia, which arrived at Boston on the 19th, we received English papers to the 4th Dec. American flour had declined in the British markets, and the effect of this intelligence has been to depress prices full 50 cents per barrel in this country. At New-York, Saturday, 20th, \$6 per bbl. was demanded for Genesee—buyers only offering \$5.75—nothing doing. American wool was still finding its way to English markets, but some fault seems to be found with the manner in which it is put up. It is hoped that this defect will be remedied, as this new article of trade may become of much importance to this country. Cotton at Liverpool continued on the decline. The English papers seem to regard the deficiency of the grain-crops as less than is generally represented, though it is admitted that the quality is quite inferior. Most of the papers consider it pretty certain that a change in regard to the laws regulating the importation of corn, will take place at no very distant day. The damage to the potato-crop by rot, is admitted to be great, in most parts of the kingdom, but the papers state that many exaggerated accounts have been promulgated.

We give the following from the *Tribune* of the 19th, in regard to prices of provisions at New-York. Prices of grain were much affected by the news brought by the Acadia, but as we have at this date, (Dec. 22,) no means of ascertaining particulars, we omit, for this month, our usual list.

PROVISIONS.—Pork is heavy, and we hear of no transactions of importance. The quotations are nominally \$10.37½ a \$10.50, and \$13.37½ a \$13.50. We notice small sales Dutchess county at \$14.25 a \$14.75. In Beef we hear of very little doing. Good country brands are quoted at \$5.25 a \$8.25; City at \$5.50 a \$5. Sales 160 bbls. common country brands at \$5.00 and \$7.94 a \$8.00. Prime Mess Beef for export is worth \$14.00. Beef Hams are \$9.50 a \$9.75, and keep active. Lard is quiet. We hear of no sales of importance. City \$7 a c. For cheese there is some inquiry, and prices have rather an improving tendency. Sales at 7½ c. for shipment. Sales Butter at 14 a 19 c. for Western Dairy; Ohio is 12 a 12½ c. for good lots. Pickled Meats are not very plenty, and dull. We quote Smoked Hams 10 a 11 c.; Sides 8 c.; Shoulders 7 a 7½ c.; Smoked Beef 7 c.

WOOL.—(Boston prices.) Dec. 27

| | |
|---|--------------|
| Prime or Saxony fleeces, washed per lb..... | 40 a 45 cts. |
| American full blood fleeces..... | 37 a 40 " |
| " three-fourths blood fleeces..... | 34 a 35 " |
| " half blood do..... | 32 a 33 " |
| " one-fourth blood and common..... | 29 a 31 " |

FOR SALE.

A GOOD grain FARM, three miles from the village of Mexico (Oswego county, N. Y.)

It contains 100 Acres, about 90 being under improvement, well watered; a thrifty young Orchard, and Buildings nearly new.

From two to three hundred bushels of Wheat have been annually grown, and other kinds of grain amounting to over 1000 bushels a year

The kind of soil is highly adapted to clover and plaster, and the rotation system of tillage.

Terms, \$20 per acre; one-third down; the remainder may run for eight or ten years. B. E. BOWEN.

Mexico, Oswego co., Nov. 18, 1845.

TIE-UP CHAINS of different sizes, at the Agricultural Warehouse, 23 Dean-street. Dec 1. E. COMSTOCK & CO.

HUSSEY'S REAPING MACHINES.

WILL be delivered in Baltimore, Md., and Auburn, N. Y., at 100 dollars. They will be made of the best materials, and will embrace all the late improvements. The public prints abound with its recommendations—all of which the reaper is warranted by the subscriber to fulfil.

Hussey's Corn and Cob Crusher, lately improved, is warranted by the subscriber to excel on thorough trial, any in use. Price from 25 to 35 dollars. In ordering the above machines, please address the subscriber in Baltimore. OBED HUSSEY.

Baltimore, Dec. 1—4t*

SEEDLING APPLE-TREES FOR SALE,

BY J. J. THOMAS, at his Nursery, Macedon, Wayne Co, N. Y., one year old, and from 5 to 10 inches high, at \$3 per thousand. No charge made for packing, for orders of 5000 each; or 50 cts. per 1000 for less. Orders to be post-paid and accompanied with remittances.

Oct. 1—1t.

TO SOUTHERN PLOW DEALERS.

THE subscriber having received the agency from a large and well known manufacturer, is enabled to furnish Plow Castings and plows of every description, usually sold in the Southern and Western country, at considerably lower prices than have heretofore been offered in this market for cash or approved paper. Also, Ruggles, Nourse & Mason's celebrated Plows. Dealers and others are invited to call. Orders, by letter or otherwise, will be promptly attended to.

Dec. 1—1t.

JAS. PLANT,

5 Burling Slip, N. Y. City.

GUANO.

RECENTLY received direct from Ichaboe, per Shakspeare. The various experiments made from this cargo has proved its quality equal, if not superior to any other Guano. Great care has been taken to put it in tight casks, that it may be kept any time without losing the ammonia. For sale in lots to suit purchasers, by

EDWD. K. COLLINS & Co.,

Dec. 1—1t

56 South-street, New-York.

VALUABLE WORKS, BY A. J. DOWNING, Esq.

1. *The Fruits and Fruit Trees of America*, or the Culture, Propagation and Management, in the Garden and Orchard, of Fruit Trees generally; with descriptions of all the finest varieties of Fruit cultivated in this country. 1 thick vol. 12 mo. Fifth edition, with many engravings.—\$1.50. Or a superior edition, in large 8 vo., to match the author's other works. \$2.50.

"At length we have the gratification of announcing this long expected work, and from a perusal of it, we can say, that nothing compared with it on the subject of Pomology has yet been published in the United States. This work will unquestionably now become the standard pomological work of this country; for the great care bestowed on the different kinds, arranging and connecting numberless synonyms, and giving accurate outlines and descriptions, will make it a safe guide."—*American Agriculturist*.

2. *A Treatise on Landscape Gardening*; adapted to North America, with a view to the improvement of Country Residences. Comprising historical notices, and general principles of the art; directions for laying out grounds, and arranging plantations; description and cultivation of hardy trees; decorative accompaniments to the house and grounds; formation of pieces of artificial water, flower-gardens, etc.; with remarks on Rural Architecture. New edition, with large additions and improvements, and many new and beautiful illustrations. 1 large vol. 8 vo. \$3.50.

"This volume, the first American Treatise on this subject, will at once take the rank of THE standard work."—*Silliman's Journal*.

"Downing's Landscape Gardening is a masterly work of the kind—more especially considering that the art is yet in its infancy in America."—*Loudon's Gardener's Magazine*.

3. *Designs for Cottage Residences*, adapted to North America, including Elevations and Plans of the Buildings, and Designs for Laying out Grounds. By A. J. Downing, Esq. 1 vol. 8 vo., with very neat illustrations. Second edition, revised \$2.00.

A second edition of "Cottage Residences" is just published as Part I; and it is announced by the author that Part II., which is in preparation, will contain hints and designs for the interiors and furniture of cottages, as well as additional designs for farm buildings.

4. *Gardening for Ladies*; and Companion to the Flower-Garden. Being an alphabetical arrangement of all the ornamental plants usually grown in Gardens and shrubberies; with full directions for their culture. By Mrs. Loudon. First American, from the second London edition. Revised and edited by A. J. Downing, Esq. 1 thick vol. 12 mo., with engravings representing the processes of grafting, budding, layering, &c., &c. \$1.25

"This is a full and complete manual of instruction upon the subject of which it treats. Being intended for those who have little or no previous knowledge of gardening, it presents, in a very precise and detailed manner, all that is necessary to be known upon it, and cannot fail to awaken a more general taste for these healthful and pleasant pursuits among the ladies of our country."—*N. Y. Tribune*.

Published and for sale by

WILEY & PUTNAM,

Nov. 1—3t.

161 Broadway, N. Y.

ROOT CUTTERS for cutting Potatoes, Ruta Bagas, &c., for cattle, at the Agricultural Warehouse, 23 Dean-street.

